



Africa Institute of
South Africa



Natural Resources Governance in southern Africa

Edited by Lesley Masters &
Emmanuel Kisiangani



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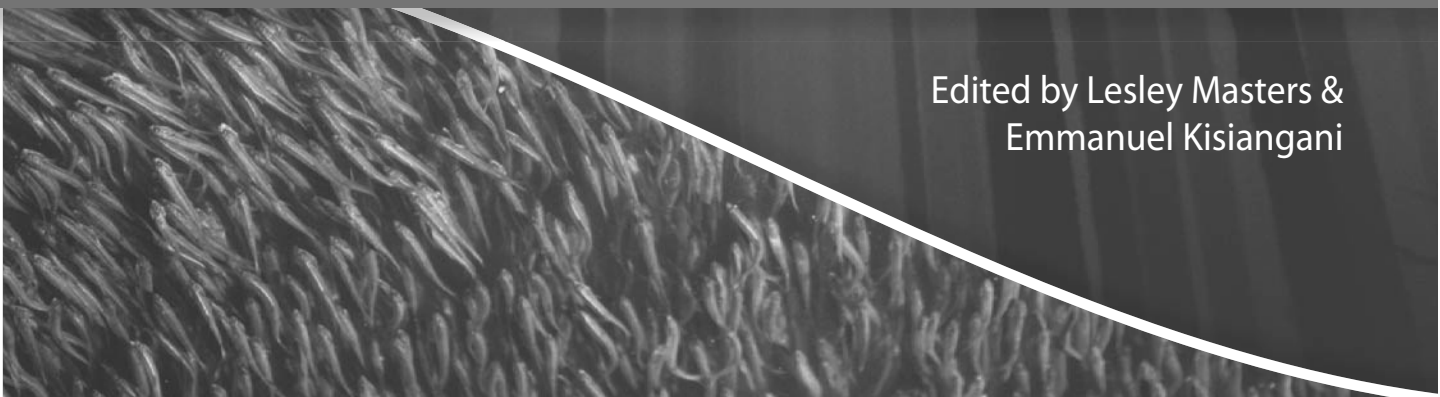


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Acronyms and Abbreviations

ANC	African National Congress
BEE	Black Economic Empowerment
CBO	Community based organisation
CDM	Clean Development Mechanism
COSATU	Congress of South African Trade Unions
DME	Department of Minerals and Energy (former)
DTI	Department of Trade and Industry
DWAF	Department of Water Affairs and Forestry
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EU	European Union
FMP	Fisheries Master Plan
FAO	Food and Agricultural Organisation of the United Nations
ITQ	Individual Transferable Quota
MLRA	Marine Living Resources Act
MPRDA	Minerals and Petroleum Resources Development Act
NGO	Non Governmental Organisation
NTFP	Non Timber Forest Product
PARPA	Programme for Poverty Alleviation
PES	Payment for Ecosystem Services
SACP	South African Communist Party
SADC	Southern African Development Community
SLA	Sustainable Livelihoods Approach
TBNRM	Transboundary Natural Resource Management
TFCA	Transfrontier Conservation Area
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

Introduction

Lesley Masters

Southern Africa is endowed with numerous non-renewable natural resources such as coal, crude oil, natural gas and minerals, as well as renewable natural resources such as forestry, marine resources and naturally occurring biodiversity of fauna and flora. Despite this natural wealth the southern Africa region remains peripheral in the global economy, with countries such as the Democratic Republic of Congo (DRC), Lesotho, Malawi, Mozambique, and Zambia, among the world's Least Developed Countries (LDCs). In his book, *The Bottom Billion*, Paul Collier includes natural resources among the 'traps' that suppress development in countries that languish at the bottom of the development ladder. He notes that the 'societies of the bottom billion are disproportionate in this category of resource-rich poverty: about 29 percent of the people in the bottom billion live in countries in which resource wealth dominates the economy' (Collier, 2007: 39). This is linked to the concept of the 'resource curse', where those countries that have significant natural wealth fail to benefit from it. As George Soros argues, '[p]erversely, many countries rich in natural resources are poorer and more miserable than countries that are less well endowed' (Soros, 2007: xi). The problem is that a country's dependence on a particular resource impacts negatively on the development and diversification of its other industries. Moreover, it exposes the country to the effects of external price shocks in the volatile commodity markets.

What differentiates between wealth from natural resources and any other types of wealth is that it 'does not need to be produced. It simply needs to be extracted' (even if there is often nothing simple about the extraction process). Since it is not a result of a production process, the generation of natural resource wealth can occur quite independently of other economic processes that take place in a country; it is, in a number of ways, 'enclaved' (Humphreys *et al.* 2007: 4). The governance of non renewable and renewable natural resources thus requires a holistic approach, particularly as the region faces the growing politicisation of natural resources linked to socio-economic development. As the subsequent chapters of this book indicate, within the southern African region large sections

of the population remain reliant on natural resources for their livelihoods. The problem is that dependence on natural resources has resulted in individuals and communities trying to survive in a position where they are unable to break out of a situation of extreme poverty.

The governance of natural resources within Africa has come increasingly to the fore against growing evidence that these resources are being over-exploited and damaged by global challenges such as rapidly expanding populations, the effects of climate change, and an emphasis on economic development and the realities of the international economic order that fails to take into account environmental externalities. At a regional level, absence of necessary policies on adequate conservation and governance of natural resources has, for example, seen the continued decline of fish stocks, desertification and deforestation. At a national level the role of natural resources in promoting socio-economic development has not been fully appreciated within mainstream policy decision-making. As the chapters in this book indicate, if managed correctly, natural resources provide the opportunity to empower individuals and communities dependent on them. The continent has a wealth of natural resources (often underutilised nationally), which should be managed sustainably for socio-economic development and the attainment of the Millennium Development Goals (MDGs).

An interest in Africa's natural resources from beyond the continent has always been present to some degree. Today there is growing interest in the continent's resources 'largely driven by global economic growth, especially in Asia, and the related demand for fossil fuels and minerals' (Kaberuka, 2007: iii). This interest is not, however, merely confined to the non-renewable natural resources (gold, copper, diamonds) but to the continent's forests, fish, and land resources. According to the African Development Report 2007, '[s]ound environmental management and, not least, effective governance, have to be a priority on the agenda to ensure that Africa's natural resource wealth generates more rapid development and poverty reduction' (African Development Bank, 2007: xxv). To address questions of effective governance and as a contribution towards the development of effective African responses to resource dependence problems, the Institute for Global Dialogue (IGD) is conducting a multi-case study of the natural resource problem in Africa, focusing on SADC. The purpose of this focus is twofold: firstly, to elaborate on the poverty trap hypothesis in SADC using in-depth case studies of a select number of countries and thematic foci. Secondly, having better understood the impact of resource dependence on the economies and politics in SADC, to investigate and analyse possible policy interventions to mitigate the problem by looking at what needs to be done to allow resources to progress up the value-chain and strengthen progressive resource governance.

In building on the discussion from *'Rethinking Natural Resources in southern Africa'*, the IGD commissioned four papers considering natural resource governance in mining, fisheries, forestry, and the transfrontier parks. Each of the chapters endeavours to identify the problem of access to resources and the need to move towards more sustainable consumption and production patterns. The authors take into account the importance of effective implementation and the checks and balances necessary to provide for sustainable resource management.

In the first chapter David van Wyk draws on Immanuel Wallerstein's world-system theory in explaining the relationship between core and periphery states in the mineral sector. Central to his analysis is that mining has contributed to uneven development between countries within the SADC region and the industrialised countries of Europe and the US. The chapter also notes that distortion in the distribution and access to natural resources has implications on a national level. Through the case study of South Africa the analysis continues to highlight the effect of the extractive industries in shaping core-periphery relations within the domestic context, and the impact this has on the development of provinces. Finally, the chapter considers the legislative and regulatory environment governing minerals where questions concerning property rights and 'just compensation' are raised.

In the second chapter Moeniba Isaacs and Horacio Gervasio disaggregate the structural challenges facing artisanal and small-scale fishers in Mozambique and South Africa. Demonstrating the link between these fisheries and the poverty trap, the chapter highlights the challenges caused by overexploitation, the shortfall in skills development and diversification, limited technical resources, environmental challenges (climate change), access to finance, and competition with industrial fleets. The case studies of Mozambique and South Africa highlight the divergent approaches between the two countries in addressing the poverty gap. Through their discussion on fisheries policy development, the authors indicate that there has been a distinct difference in approach between Mozambique and South Africa. Whereas Mozambique has sought to alleviate poverty and reduce vulnerability in its fisheries industry, South Africa's emphasis has been focused on transformation in terms of race and gender.

The third chapter by Cori Ham and Paxie Chirwa, considers the multidimensional role of forests in the livelihoods of communities and economic development within the region. This extends from commercial timber to sustaining local communities (fuel, food, medicine), as well as playing a role in mitigating carbon emissions. Yet the region currently occupies only a small percentage of the global trade in wood, and this has been primarily 'geared towards low value added items'. Forestry has the potential to play a much larger role in regional as well

as continental, socio-economic development. As the authors point out, however, there are a number of challenges that have prevented forestry from contributing more significantly to development. The chapter also considers the development of legislation for the management of forest resources within the region and ‘how changes in policies, facilitation of trade, promotion of afforestation, adoption of ecosystem services and stimulation of forest based enterprises could improve the benefits from forests in southern Africa’.

In the final chapter, Emmanuel Kisiangani considers the cross-border nature of natural resource governance through Transboundary Natural Resource Management. The chapter highlights the role of Peace Parks in the sustainable management of the region’s fauna and flora, as well as the importance of local community engagement in its protection. With burgeoning eco-tourism interest in the region, these transfrontier parks offer an opportunity to boost regional co-operation and promote growth. As the analysis highlights, these parks present a significant opportunity for the socio-economic development of those communities located in and around the transfrontier conservation areas. Nevertheless, while the Southern African Development Community (SADC) may see transboundary natural resource management as an important part of regional co-operation, differences in investment and infrastructure between states has seen tensions emerging regarding the distribution of benefits.

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Globalisation and the Minerals Industry

A South African Case Study

David van Wyk

Introduction

Countries in southern Africa are trapped in a global economic division of labour based on the neo-Ricardian notion of comparative/competitive advantage. This holds that countries should concentrate their developmental efforts on the areas of their specialisation or comparative advantage. According to this model, industrialised countries of the northern hemisphere should focus on manufacturing as they are comparatively more industrialised, while the countries of the south, being blessed with mineral and raw material wealth, should focus on continued development of their mineral and raw material production. This is based on the thesis that a nation should specialise in the area where it is relatively most efficient compared to others, since this will result in a comparative advantage and allow it to maximise its economic potential by focusing on this advantage. The current economic regime with its basis on the neo-liberal Washington Consensus, virtually criminalises any attempts by mineral and raw material exporting countries to emulate the industrialisation paths followed by developed countries – including state intervention towards diversification and manufacturing (Reinert, 2007: 19). The prevailing neo-liberal or market fundamentalist approach not only ignores the history of development in industrialised countries, but it also denies the interventionist role that the state played in that history. It fails to realise the interrelations of global dependence and how this functions to replicate patterns of development and underdevelopment.

This chapter uses South Africa with its large minerals extraction industry as a case study to demonstrate the impact of the dominant economic discourse in shaping a mineral dependency. It highlights the subsequent effect of this dependency on the spatial arrangements between developed and developing nations; the spatial arrangements within South Africa; and on poverty, the environment, gender and democracy, both within the state and the Southern African Development Community (SADC) region. The first section begins by

considering Immanuel Wallerstein's world-system theory with its focus on core-periphery relations and dependency as it relates to extractive industries. Using this as a platform for the analysis, the second section investigates how this applies to South Africa in terms of the accumulation of capital and class formation through mining and the impact thereof on economic development prospects; the legislative environment; the natural environment; poverty; labour; gender relations; and democracy in the state. In addition, while Wallerstein's analysis highlights relations between states, there is evidence of divisions between centres of development and those areas that remain on the periphery *within* states. This discussion therefore sets out to highlight the development of core-periphery relations within South Africa between the more developed and less developed provinces. The third section looks at how legislation, intended to break the mining monopolies in the mining industry combined with the efforts by the South African government at Black Economic Empowerment (BEE), has had unintended consequences with regard to the dispossession and disempowerment of rural communities. The final section sets out policy recommendations that are both country specific as well as being generally relevant to the SADC region, given the prominence of minerals and extractive industries within the region.

Positioning mineral producing economies in the global economy

Drawing judiciously on Immanuel Wallerstein's world-system theory, the global economy can be said to be divided between a developed core (mostly the former colonial powers) and an underdeveloped periphery (mainly former colonies) (Baylis, Smith, & Owens, 2008: 148). Wallerstein adds an additional layer in the form of semi-periphery, meaning countries that have achieved a relatively vibrant indigenously owned industrial base. Many of the so-called Asian Tigers would fall into this category, and South Africa is perhaps knocking on the door, given its vehicle assembly industry in this country. Nevertheless, South Korea, India and Brazil make local brands of vehicles. South Africa merely assembles foreign brands. It was the lucrative relationship between the global car industry and platinum mining that created a long wave mining boom in platinum, lasting from 1972 to 2008. Not only is platinum one of the best catalytic agents for accelerating chemical reactions, research has shown that platinum is also one of the best components for catalytic converters essential in the control of exhaust emissions. These findings, coupled with the 1971 US Environmental Protection Agency hearings into the compliance of the motor industry with the Clean Air Act

of 1965, saw Impala Platinum South Africa acquiring long term supply contracts with General Motors and Chrysler in 1972 (van Wyk, 2007). The current global financial crisis has severely dented South Africa's motor assembly and vehicle components manufacturing industries. According to Irwin Jim of National Union of Metalworkers of South Africa, 36 000 workers in the motor car industry have already lost their jobs, while another 30 000 might still lose their jobs during 2009 (Dlamini, 2009). Indeed, by June 2009 General Motors (GM) South Africa had halved its labour force (Venter, 2009).

The current crisis in the global motor car industry has important implications for the mining sector as this industry, both globally and locally, is a major consumer of platinum. The collapse of demand for platinum has seen retrenchments in the mining sector, limits on the number of new entrants or 'juniors' to the sector, as well as the collapse of mining broad-based black economic empowerment (BEE) deals. Certainly the Congress of South African Trade Unions (COSATU) estimates that the mining industry, 'the backbone of South Africa's economy, will shed 50 000 jobs, amid predictions of up to 300 000 job cuts across the board this year' (Gerardy, 2009).

The economy of the world system is linked together in an exploitative relationship in which the wealth is drained away from the periphery to the centre. For South Africa, the historic development of the mining industry has seen the country locked into a model of uneven development with core countries such as the United Kingdom. Solly Sachs argues that while mining could have served as a stimulus for the development of other branches of the economy, the fact that most of the mining companies in southern Africa are subsidiaries of foreign owned companies – principally British – the Chamber of Mines 'has been consistently and principally opposed to the development of the manufacturing industries'. The bitter opposition of the mining interests to tariff protection for manufacturing industries (in South Africa) cannot possibly have been inspired by the sacred, liberal principles of free trade, for the mining industry is highly monopolistic and imperialistic and has nothing in common with the principles of liberalism or free trade' (Sachs, 1952: 103).

Many economists in South Africa would contest the author's claim that South Africa is primarily a minerals exporting economy, noting the fact that the financial sector far outstrips the mining industry in terms of relative size. However, much of the financial sector is tied to the mining industry, and in the current commodity crisis the turmoil in the financial sector is feeding into the collapse of junior mining companies in South Africa. The financing of BEE deals in the mining sector has put both the financial sector and the motor car assembly industry in the country at risk.

Table 1.1: Bi-literal trade profile between United States and SADC* Countries

	Value (1 000 dollars)			Year-to-date Jan.-Mar.	
	2005	2006	2007	2007 YTD	2008 YTD
Chemicals and related products					
US Exports to SADC	25 379	830 291	860 887	186 289	237 657
US Imports from SADC	537 526	493 919	568 017	114 613	227 520
Energy-related products					
US Exports to SADC	159 346	221 697	270 321	49 915	82 846
US Imports from SADC	8 594 433	11 614 695	12 532 252	2 977 790	3 931 750
Minerals and metals					
US Exports to SADC	221 002	375 124	379 839	86 917	98 131
US Imports from SADC	4 351 675	5 716 555	7 168 767	1 666 919	1 889 884
Machinery					
US Exports to SADC	523 464	692 828	936 799	210 894	246 299
US Imports from SADC	269 680	309 171	418 138	98 679	73 206
Transportation equipment					
US Exports to SADC	2 007 627	2 589 302	2 670 132	558 232	755 575
US Imports from SADC	387 801	583 657	665 492	169 183	423 991
Electronic products					
US Exports to SADC	628 760	716 814	804 853	191 677	214 831
US Imports from SADC	62 136	63 481	68 351	13 486	17 936
Miscellaneous manufactures					
US Exports to SADC	114 355	122 971	144 317	31 556	31 821
US Imports from SADC	98 328	136 323	131 458	34 016	20 052
All sectors:					
US Exports to SADC	5 066 806	6 390 152	7 258 815	1 513 788	1 944 073
US Imports from SADC	16 181 353	20 686 026	23 241 659	5 465 131	6 914 830

*Note: Excludes Zimbabwe (not an AGOA beneficiary) (AGOA, 2008)

Source: US Department of Commerce

Table 1.1 shows that South Africa as well as other SADC member countries are ‘price takers’, given their heavy dependence on mining exports. Minerals are the major exports from Botswana (diamonds); Angola (oil and diamonds); Namibia (diamonds and uranium); Zimbabwe (platinum, coal and copper); Zambia (copper) with the result that these economies are structured around extractive industries. In contrast the USA,¹ for example, is a ‘price maker’, given the flexibility that derives from its industrial and manufacturing capacity.

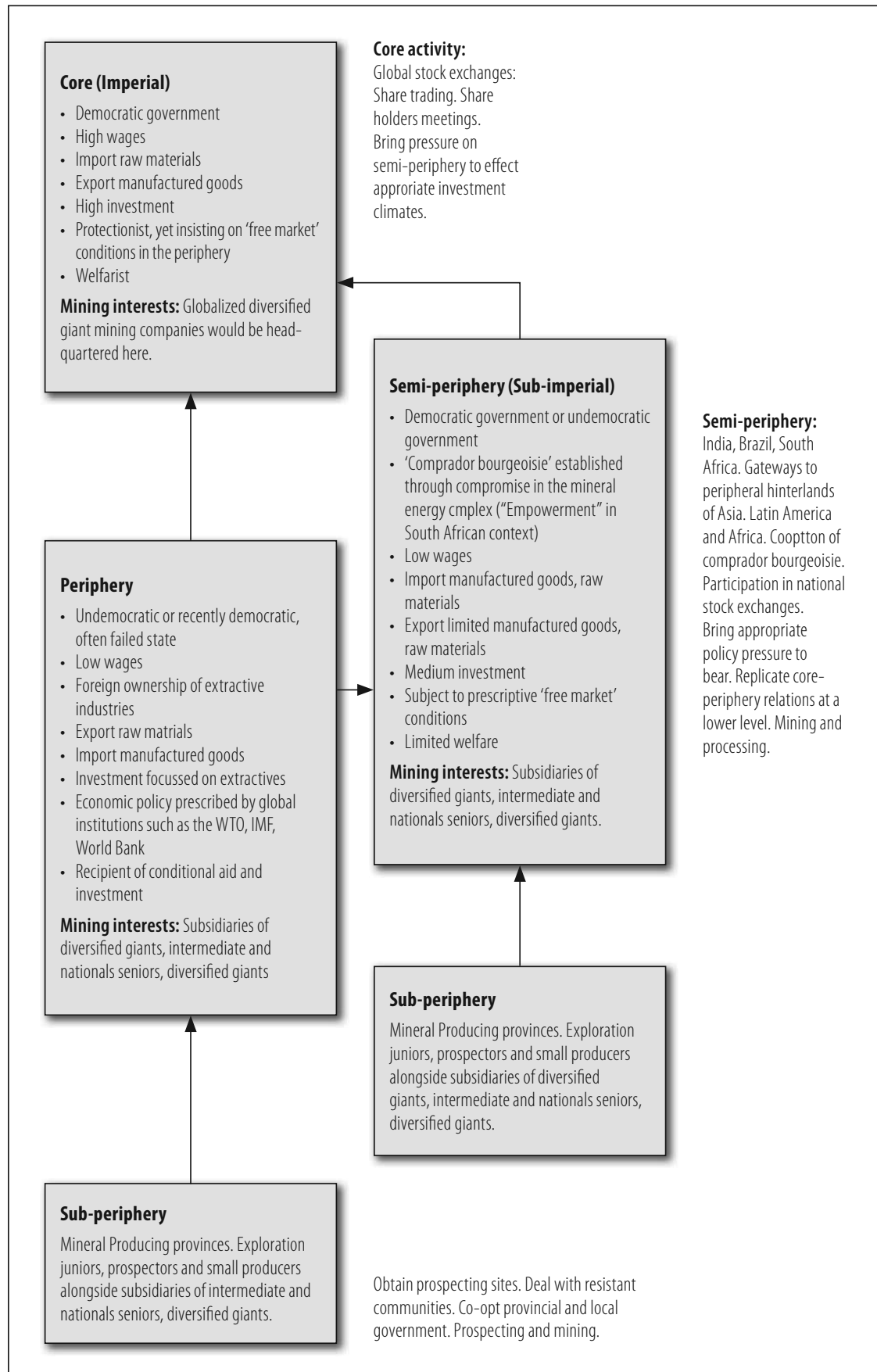
The difference in import and export figures for minerals, metals and machinery between the USA and states such as Botswana, Zambia, and Namibia, highlights the divisions between core and peripheral states. Of these countries Botswana is the most mineral dependent country in the world with a 50% shareholding in diamond producing Debswana; the other 50% is owned by De Beers, which has South African origins. Given its absolute dependency on a single commodity (diamonds), Botswana has been particularly hard hit by the current global financial crisis (Nsingo, 2009).

Stewart Ngandu shows that there is also a strong correlation between commodity price booms and de-industrialisation in mineral producing economies. He demonstrates that,

- mineral prices play an important role in the determination of South Africa’s real exchange rate
- there is significant literature that points to the conclusion that for commodity exporting countries there is a significant correlation between the exchange rate and mineral export prices
- South Africa is experienced in the competitiveness of the manufacturing sector due to an appreciation of the real exchange rate during the commodities price boom
- an appreciation in the exchange rate has a significant impact on export competitiveness and therefore on the development of the manufacturing sector (Ngandu, 2005).

In relation to the other SADC countries, South Africa is a semi-peripheral country and as such is able to play a more dominant role within the SADC region. However, divisions have emerged between developed ‘core’ areas and under-developed ‘peripheral’ areas within the country. In expanding Wallerstein’s model to include regions within a state, a fourth level – or the ‘sub-periphery’ – has been included for the purposes of this analysis. The sub-periphery refers to provinces or geographical areas within the periphery that are mainly rural, with economies dominated by resource extraction.

Figure 1.1: Core-periphery relationship, a schematic presentation derived from Wallerstein



The wealth of the mineral producing provinces in South Africa such as the North West Province, Limpopo, Mpumalanga, the Free State and the Northern Cape feed into the relatively more developed province of Gauteng. All the head offices of the major mining corporations are located in Johannesburg. Much of the procurement of technology, goods and services for the mines are done from Gauteng and some of the mineral processing, including some smelting of platinum and gold, is done on the East Rand of Gauteng. The sale, cutting and polishing of diamonds is also done in Gauteng. 'As a consequence, the relative positions of the zones become ever more deeply entrenched: the rich get richer while the poor become poorer' (Baylis, Smith, & Owens, 2008: 148). Unless SADC in general, and South Africa in particular, are able to escape from their dependence on minerals, the region and the country will not be able to escape from the global poverty trap.

The Political Economy of Mining in South Africa: Undoing the old monopolies and creating a black middle class

According to the Human Sciences Research Council;

Generally, mineral exporting countries tend to have lower growth rates, low investment in value-added activities, higher levels of inequality, higher rates of inflation and overvalued exchange rates. South Africa is no exception. Government policy has distanced the economy to a certain extent away from the apartheid era, when resource curse elements were entrenched. However, the developmental path charted over the course of the 20th century still runs deep. This causes economic bias that encourages capital intensive investments and disincentives to invest in labour absorbing and higher value activities. It is also relatively non-inclusive (Human Sciences Research Council, 2009).

Extractive industries such as mining, continue to play a major role in the South African economy as **Box 1.1** indicates. Although much has been made of the growth in the services sector, such as banking and finance, much of this sector derives its business directly from the mining industry.

Table 1.2 shows that mineral exports from South Africa amount to more than 57.3% of total exports to the United States of America, with six of the top ten export commodities from South Africa to the USA derived from mining. Similarly, South African exports to the European Union comprises: mineral products (21%), precious and semi-precious metals and stones (18%), base metals

Box 1.1: South African exports and imports at a glance

- South Africa's exports increased by 17.8% to US\$ 75.2 bn in 2007 from US\$ 63.8 bn in the previous year, **benefiting from the continued strength of metal demand**.
- Imports also increased by 17.8% in 2007, up from US\$ 69.9 bn in 2006 to US\$ 82.4 bn in 2007, mainly due to higher import of petrochemicals, investment goods and industrial raw materials.
- Trade deficit thus further widened from US\$ 6.1 bn in 2006 to US\$ 7.2 bn in 2007.
- The major exports of South Africa in 2006 (*as per latest data available*) were **platinum (11.6% of total exports), gold (7.4% of total exports), coal (4.4%), cars and other components (4.1%), and ferro alloys (3.8%)**.
- South Africa's principal imports during 2006 comprised of petrochemicals (13.7% of total imports), equipment component of cars (7.1%), cars and other components (5.8%), petroleum oils and other products (4.3%), and telecom components (2%).
- Japan was the most important export destination accounting for 10.7% of total exports in 2006 (*as per latest data available*), followed by the US (10.4% of total exports), UK (7.9%) and Germany (6.8%).
- Germany accounted for the bulk of South Africa's imports during 2006, amounting to 12.2% of the total imports. China (9.7% of total imports), US (7.4%) and Japan (6.4%) were the other major origins of the country's imports in 2006.
- The current account deficit was higher at US\$ 19.9 bn (or 7.6% of GDP) in 2007 as compared to the previous year's deficit of US\$ 16.5 bn (or 6.4% of GDP) in 2006.

(14%), and machinery and mechanical appliances (14%) (Stabilis Development (Pty) Ltd, 2008). Minerals and metals thus comprise 54% of South Africa's exports to the EU.

Table 1.2: Top 10 Exports from RSA to USA

	Commodity	Value US\$	% of total exports to US from RSA	Increase % from 2005
1	Precious Metals (other than gold)	2.7 billion	35.8	44.5
2	Diamonds	947,7 million	12.4	26.4
3	Unmanufactured steelmaking	528.4 million	7.0	20.6
4	Aluminium	369.6 million	4.9	23.0
5	Automotive parts and accessories	321 million	4.3	33.9
6	New and used passenger cars	320.7 million	4.3	165.8
7	Miscellaneous non-ferrous metals	315.2 million	4.2	13.4
8	Semi-finished iron and steel mill products	287 million	3.8	79.5
9	Industrial organic chemicals	248.2 million	3.3	1.7
10	Items returned to US then re-imported	108.6 million	1.4	(down) 7.9

Source table 3 and 4 (AGOA, 2008)

Table 1.3 shows imports from the USA into South Africa which includes mostly manufactured goods from the USA. Significantly excavating machinery, trucks and special purpose vehicles, other industrial machines and materials handling equipment; the kind of equipment that relate to South Africa's extractive and mining industries. These two tables demonstrate the core/periphery relationship that exists between South Africa and the United States.

Table 1.3: Top 10 imports from the USA to RSA

	Commodity	Value US \$	% of total imports	% Increase from 2005
1	New and used passenger cars	US\$220.9 million	5.0%	(down) 55.7%
2	Excavating machinery	\$218.4 million	4.9%	35.2%
3	Organic chemicals	\$186.3 million	4.2%	36.7%
4	Minimum value shipments	\$183.5 million	4.1%	4.1%
5	Telecommunications equipment	\$168.8 million	3.8%	29.8%
6	Other petroleum products	\$161.3 million	3.6%	32.1%
7	Civilian aircraft	\$160.0 million	3.6%	25.4%
8	Materials handling equipment	\$158.4 million	3.6%	62.0%
9	Trucks, buses and special purpose vehicles	\$153.1 million	3.4%	22.8%
10	Other industrial machines	\$136.0 million	3.0%	6.9%

Historically, both the US and South Africa are former colonies, yet while the USA is an industrial and manufacturing giant and super power, South Africa remains a developing country. There are several variables including geographic size, population (and therefore market size). However, on achieving independence (1783) the USA immediately set about to follow a protectionist and state interventionist policy, emulating British and European manufacturing. South Africa on the other hand was part of the British Empire until 1960, and except for two spurts of manufacturing and industrial development on the back of the impacts of World War One and Two, remained an economy firmly locked into the interests of Great Britain. The former colonial power limited economic development in most of its colonies primarily to the extraction of raw materials and minerals. This was the case in most SADC countries that were British colonies. No matter how well endowed a country might be with oil or mineral resources, it will remain

underdeveloped for as long as it fails to make the transition to manufacturing and industrial development. On the whole, the manufacturing capacity that has developed in South Africa is largely associated with the input requirements of the mining industry.

Countries that base their economies on extractive industries are at a disadvantage in that they operate within a perfect market in a global context. In other words, agricultural and mining economies are price takers. They are not in control of the prices of the commodities on which their economies are based. On the other hand the production input costs of mining and agriculture i.e. of technology and/or machinery, increases as production of raw materials increases. The mining industry in South Africa complains constantly of high input costs and declining production despite more than a decade of minerals boom. Industrialised nations with advanced manufacturing capacity operate in imperfect markets and are thus price makers. As production volumes increase, costs decrease as economies of scale can be applied. Such nations insist on favourable investment conditions and free trade in the economies from which they source their raw materials, while simultaneously applying tariff barriers and practicing protectionism where their own industries are concerned. Industrialised countries and blocs such as the European Union (EU) threaten disinvestment from countries that try resisting such dictated structural impositions. They use institutions such as the World Trade Organisation (WTO) and global agreements to protect 'intellectual property'. This is nothing more than a sophisticated way of preventing extractive economies from emulating First World manufacturing and industrial capacity, thereby trapping the Third World in the extractive industries trap. Minerals producing countries are then locked into a 'core' (First World) 'periphery' (Third World) relationship in terms of the global economy.

This dependency relationship is often replicated within countries. Using key indicators, **Table 1.4** highlights the relationship between minerals producing provinces in South Africa and those that have managed to move beyond a dependency only on extractive industries.

Table 1.4 shows that the three poorest provinces in South Africa, the Eastern Cape and KwaZulu Natal are labour sending areas. These provinces supply cheap migrant labour to other mainly mining provinces. Limpopo is both a labour sending area as well as a major platinum producing province. Ricardian theory would hold that labour sending provinces have a relative advantage in that they have an abundance of cheap labour and that they should therefore specialise in the provision of such labour.

The neo-Ricardian economic model would argue that industrial investment in South Africa should concentrate on those provinces that have already

Table 1.4: Key Poverty Indicators for South Africa by Province

Province	No. of Poor Persons (R million)	% of Population in Poverty	Poverty Gap (R billion)	% Share of Poverty Gap	Relationship to Mining
Eastern Cape	4.6	72	14.8	18.2	Labour sending area
Free State	1.8	68	5.9	7.2	Gold mining area
Gauteng	3.7	42	12.1	14.9	Former mining, concentration of mining HQs and financial services capital
KwaZulu Natal	5.7	61	18.3	22.5	Labour sending area
Limpopo	4.1	77	11.5	14.1	Major platinum mining area, labour sending area
Mpumalanga	1.8	57	7.1	8.7	Major coal, platinum and gold mining area
North West	1.9	52	6.1	7.5	Major platinum, gold, uranium mining area
Northern Cape	0.5	61	1.5	1.8	Major iron and diamond mining area
Western Cape	1.4	32	4.1	5.0	No significant mining
South Africa	25.7	57	81.3	100.0	

(Schwabe, 2004)

Table 1.5: Gross Geographic Product (GGP) by sector (% of provincial total, 1999)

Sector	Gauteng	North West	Free State	Northern Cape
Primary sector	5.1	33.9	26.5	25.2
Agriculture	0.6	7.0	9.0	16.1
Mining	4.5	32.9	17.5	9.1
Secondary Sector	23.1	11.4	20.8	10.5
Manufacturing	17.8	8.4	13.6	5.6
Electricity	2.2	1.2	2.0	2.4
Construction	3.1	1.8	3.8	2.5
Tertiary Sector	71.8	48.7	52.7	64.3
Trade	13.9	11.1	9.7	13.7
Transport	11.7	5.7	7.6	12.4
Finance	26.2	6.4	9.4	10.1
Community Services	20.0	25.5	26.0	28.1
Total (SAR billion)	363.0	41.9	41.7	12.6

(Source: WEFA Regional Economic Focus)

demonstrated industrial capacity, and that other provinces should focus on areas of relative advantage. The impact of the notion of relative advantage on South Africa is reflected in **Table 1.5**.

Gauteng is the industrial and financial hub of South Africa, with the financial sectors of the other eight provinces relatively undeveloped in comparison. In the other selected provinces highlighted in **Table 1.5**, the primary sector plays a far bigger role than in Gauteng. In addition there is a clear distinction between Gauteng and the other provinces in the tertiary sector. While community services play a major role in the North West, Free State and the Northern Cape, in Gauteng the focus is on finance, trade and transport. Predominantly mining provinces procure most of their inputs such as finance, technology (machines and equipment), management and other services from Gauteng where they are headquartered. Implats smelts much of its platinum on the East Rand, where much of South Africa's gold is also smelted. The Diamond Centre of South Africa is located in down-town Johannesburg; major mining headquarters and the Chamber of Mines are to be found in Marshall Street, Johannesburg. This means that much of the value of the minerals produced in these provinces is realised in Gauteng. Jeremy Seekings and Nicoli Nattrass argue that despite all the best efforts of the Department of Trade and Industry (DTI) and that of the Department of Labour to affect a skills based economy that would attract investment into manufacturing, all attempts to move away from an essentially extractive economy have failed (Seekings & Nattrass, 2005: 240–375).

After a global commodities price boom, the political elite in the country quickly realised that the formation of a black middle class in the country by means of Black Economic Empowerment (BEE) would be much more rapidly realised through mining than through manufacturing. Various policy statements by the African National Congress (ANC) explicitly posit that the country's growth and development would be based on wealth created by the minerals sector (African National Congress, 2009). The mining sector had a massive absorptive capacity to take on top aspirant middle class elements, especially after the nationalisation of the mineral resources of the country. This follows from the decision to compel the major corporations who had monopolised the sector historically, to convert old order rights into new order rights and to comply with conditions set out in the Mining Charter and empowerment legislation and regulations, including 27% black ownership (vanWyk, 2007).

A central weakness in the effort to developing a black middle class by promoting black economic empowerment was the fact that the industry's success depends, due to various inherent factors, on the availability of cheap unskilled and semi-skilled migrant labour. Historically the sector has evolved a

dependence on cheap migrant labour due to the low grade of South African ore (a large amount of rock/gravel has to be extracted for relatively low quantities of mineral); the fact that most minerals occur at deep levels underground (except coal and alluvial diamonds); and the location of most minerals far away from coastal harbours. As a result supply side costs to the industry were very high which meant that the only relative cost where profitability could be secured was labour. This resulted in the evolution of a cheap labour migrant dependant sector, which influenced the labour market and established the spatial arrangements associated with apartheid; the large racially and tribally defined reserves which acted as labour sending areas for mines located in white areas. This also had an impact on the region as the mining industry attracted labour from countries such as Malawi, Zambia, Botswana, Lesotho and Mozambique. The mining sector therefore has a rather limited capacity to create jobs for South Africans at the bottom rungs.

Within South Africa the most significant beneficiaries of BEE policies have been key figures in the mining sector such as Patrice Motsepe of African Rainbow Minerals, Mane Dipico of De Beers, Tokyo Sexwale of Mvelaphanda and a host of others with prominent affiliations to the ANC (Reichardt, 2008). However, the advance of the economic elite in mining has come at great social and environmental cost to the country (Lang, 2007). Throughout the North West Province, Limpopo and Mpumalanga conflicts pitting mining corporations against communities, commercial farmers, and environmentalists have ensued. Informal settlements have sprung up in close proximity to most mines as a result of the 'living out allowance'; an attempt to meet the requirements of the Mining Charter regarding the reduction of dependence of the mining sector on migrant labour. Many mining corporations have resorted to giving mine workers this allowance in order to claim that they are employing locals – within a certain radius of the mines (Fatal Transactions, 2008). The blossoming informal settlements have given rise to conditions under which sexually transmitted diseases, including HIV/AIDS, have spread like wildfire. Alcoholism and substance abuse have become rife. Mine health and safety has been compromised and domestic violence and crime has escalated (van Wyk, 2007).

Most disturbingly foreign mine workers living in informal settlements have become the target of xenophobic attacks. Most of the attacks against foreigners at Ramaphosa informal settlement next to Reigerpark on the East Rand were focused on Mozambican mine workers employed at adjacent mines. These unfortunate beneficiaries of the 'living out allowance' would probably still have been alive today had they stayed in mine hostels.

Box 1.2

Last week DRDGOLD said there had been production setbacks at the ERPM operation due to xenophobic attacks – as foreigners make up 38% of the workforce.

Spokesman James Duncan said that two mine workers from ERPM had died in violence in the Ramaphosa informal settlement.

Most ERPM miners do not live in mine hostels, but rather take 'living out allowances' and find accommodation on the East Rand (South Africa Press Association, 2008).

Under the Mbeki presidency a strong coincidence has developed between the political elite and the BEE elite, which has its roots mainly in the mining sector. Both have become particularly sensitive to criticism of the consequences of the BEE policy (Maseti, 2004).

Box 1.3

His [Mbeki] time in office saw the introduction of black economic empowerment measures. But development nodes, expanded public works programmes and other pet projects were insufficient in affecting the terrible poverty of the many living in what amounted to another South Africa entirely from that occupied by the BEE barons (Carter, 2008).

Seekings and Natrass are correct in suggesting that the post-apartheid re-distribution regime failed to effectively address mass poverty and unemployment in South Africa, and that these challenges are still essentially racially defined. They are also correct in asserting that government policy failed to effect the transformation of the economy towards industrialisation and manufacturing (Seekings & Natrass, 2005). However, they fail to address the predominance of the mining sector in the economy in contributing to this shortfall. Essentially South Africa remains as much a hostage to the mining sector today as it was in the 1950s when Solly Sachs wrote,

Gold mining has dominated South African economic, political and social life for over sixty years and still plays a leading role in our national affairs. Not only has the mining industry exercised almost unchallengeable power over our economic life, but it has largely determined the hybrid social development of the country, made and unmade governments and political parties, and influenced the cultural and intellectual life of the country (Sachs, 1952: 92).

Duncan Green warns that 'Natural resources can sever the "social contract" between state and citizen' (Green, 2008: 88). He argues that when a government

becomes reliant on royalties from mineral resources, it no longer needs to cultivate public legitimacy and reverts to retaining power through bribery and corruption. Should the institutional checks and balances such as a free media and independent judiciary and vocal civil society structures be weak, democracy itself can become problematic in that competitive elections could ‘unleash even worse corruption and chaos, as parties jostle to get their hands on the wealth’ (Green, 2008: 88). Green fails to mention that a dependence on minerals could also have the consequence of the ruling party weakening institutional checks and balances, and watering down democracy so as to entrench itself in power. This is particularly true where the political elite in the ruling party manage to benefit disproportionately from the mineral wealth of the country and the distinction between the private economic and public political interests of senior politicians and civil servants becomes blurred as a result of their personal involvement in the minerals sector.

As a semi-peripheral state with significant mineral resources, South Africa faces particular challenges in ensuring that this wealth does not undermine its hard-won democracy. During the ANC’s first decade in government it governed through the successful mobilisation and reproduction of active consent by the ruling class through their exercise of intellectual, moral, and political leadership (Jessop, 1982: 148). What eroded the moral high ground of the ANC government was the subsequent exploitation unleashed by the minerals boom which lasted roughly from 2005 to 2008. In addition, the very narrow (in practice) BEE policy that saw the rapid rise of ‘black diamonds’ in the mining industry, whose extravagant wealth contrasted starkly with the immense poverty of the vast majority of ordinary South Africans (South Africa is reported to have the worst Gini Coefficient statistics in the world).

The 21st Century mining corporations include some of the ‘old money’ firms such as Anglo American and De Beers (both corporations can trace their heritage back to the Rand Lords of the 19th Century) (Callinicos, 1980); Impala Platinum (having its roots in GENCOR and the era of Apartheid social and economic engineering) (Jones, 1995); Xstrata and BHP Billiton; as well as the nouveau rich corporations emanating from the assumption of power by the ANC in 1994. This includes African Rainbow Minerals, Mvelaphanda, Ehlobo Group, and Batho Barena Consortium. A common thread in the rise of most of these corporations over time has been their roots in political power. While the political structure or form of government has changed from colonialism through to the Union of South Africa, the apartheid regime (Terreblanche, 2003) and democracy, the primacy of the mining industry has remained constant. In each instance the incumbent regime has seen the industry as a vehicle towards economically empowering elites (Bond, 2005).²

The dominance of, and dependence on, minerals in South Africa and in the wider region is highly problematic in terms of the industry's costs on local communities, particularly the impact on women, health, the environment and society in general. The –

- commodification of the environment following Kyoto and World Summit on Sustainable Development (WSSD)
- struggle over land as a result of mining
- reversal of progressive environmental legislation
- corrupting of government departments and officials
- widening of the poverty gap
- creation of instant elites
- arming of rebels and terrorists
- use of mercenaries to provide 'security'
- are all consequences of a rampant minerals commodity market and a new scramble for Africa (Business Times, 2008).

The Legislative and Regulatory Environment Governing Minerals in South Africa

The Constitution of the Republic of South Africa (Act 108 of 1996) [H3]

The Constitution is the primary law of South Africa. Any Act or conduct that contradicts the Constitution is unlawful and invalid. Thus any legislation that relates to land, land reform, land restitution, land rights, minerals, mineral rights, prospecting or mining rights, forced removals, or relocations, must comply with the Constitution of the Republic of South Africa in general and with Chapter 2, 'The Bill of Rights' in particular.

Particularly pertinent is the much discussed Property Clause (Paragraph 25) in the Bill of Rights which reads,

- (1) No one may be deprived of property except in terms of law of general application, and no law may permit arbitrary deprivation of property, (2) Property may be expropriated only in terms of law of general application – (a) for a public purpose or in the public interest; and (b) subject to compensation..., (3) The amount of the compensation and the time and manner of payment must be just and equitable..., (6) A person or community whose tenure of land is legally insecure as a result of past racially discriminatory laws or practices is entitled, to the extent provided

by an Act of Parliament, either to tenure which is legally secure or to comparable redress, (7) A person or community disposed of property after 19 June 1913 as a result of past racially discriminatory laws or practices is entitled... either to restitution of that property or to equitable redress.

When the government has threatened market property in South Africa, the media and the private sector have been vehemently opposed. However, when traditional/communal property, or the rights of landholders on communal land have been threatened by the issuing of prospecting or mining licenses, there has been silence. In terms of receiving 'just compensation' for land, commercial farmers and other land owners have insisted on being compensated at market value for the land and all the improvements made thereon, and as such have appointed property evaluators. In the case of traditional communities questions have been raised about the credibility of some of the appointed evaluators. Not only have they been paid by the mining corporation, but the reports produced favour the mining company over the interest of the community or of individual land holders on communal land.

Box 1.4

Expert papers presented at the Mining Minerals and Sustainable Development (MMSD) Conference in April 2002 demonstrates that where a community is to be displaced by mining it is wrong to adopt a relocation approach, instead the corporation involved should refer to the rehabilitation of the community: *'Project owners, financiers and governments are apt to mistakenly call relocation and rehabilitation costs benefits for the displaced. If a mining promoter is injured in a car when hit by Mr X, would the promoter call the damages Mr X pays for his injuries, benefits?' The goal of these exercises should not be compensation, but rehabilitation and sustainable development for the community relocated (Downing, 2002, p 15). In other words relocation is never a benefit to communities, it is always an injury. Therefore the first option to a community should be the option of refusal a right which is to be respected by both government and corporations. The South African Constitution only calls for fair compensation in cases of relocation in the public interest, and in this sense it fails rural communities in their engagement with corporations and is in need of review in this regard.*

In *Policy Gap 2*, the Bench Marks Foundation established that the notion of rehabilitation or complete restoration of communities affected by mining to be preferable to 'just compensation' as the mining operation so completely disrupts the community socially, culturally, healthwise, environmentally, spatially and economically. The corporation should be duty bound to leave the community substantially better off, rather than simply providing just compensation. The definition of 'better off' should not be left to the mining corporation or the government but should be negotiated on equal terms with the community, where

the community has sufficient independent information at their disposal to make well-considered and informed decisions. Equal terms also imply that communities should have the right of refusal and that the notion of prior consent will be respected by both the government and mining corporations.

Community members and individual landholders have difficulty in finding assistance at the courts, let alone the constitution to defend themselves despite the commitment of Paragraph 33 which calls for just administrative action: '(1) Everyone has the right to administrative action that is lawful, reasonable and procedurally fair'. There are strong suggestions of collusion between spheres of government (The Bench Marks Foundation, 2007), individual officials within government and mining corporations, when it comes to situations of conflict between mining corporations and communities and individuals affected by mining (The Bench Marks Foundation, 2008). This means that the right of communities and individuals to administrative justice is denied. Very often both government and mining corporations withhold critical information from communities and individuals such as the Environmental Impact Assessments (EIAs), Water Use Plans, and Social and Labour Plans, making it impossible for such communities and individuals to make informed decisions in their engagement with mining corporations.

The Minerals and Petroleum Resources Development Act (MPRDA)

The former Department of Minerals and Energy (DME) was the statutory and legislative body regulating the mineral and petroleum industry in South Africa. The main legal instrument developed by the Department to manage the industry in the country is the Minerals and Petroleum Resources Development Act (MPRDA). The preamble of the Act, in an ingenious example of Orwellian 'newspeak' (Orwell, 1983: 741–925)³ claims that it represents an effort to eradicate poverty and achieve sustainable development in South African mining communities. Furthermore, that the South African government enacted the Mineral and Petroleum Resources Development Act of 2002 (implemented in 2004) and also developed (in consultation with the mining and minerals industry) the Broad-based Socio-economic Charter for the Mining industry (the Mining Charter, 2002) to achieve these ends.

The MPRDA was promulgated by the South African Parliament during July 2002 and came into effect on 1 May 2004. This Act replaces the Minerals Act No. 50 of 1991 and regulates the prospecting for, and optimal exploitation, processing and utilisation of minerals, provides for safety and health in the mining industry, and controls the rehabilitation of land disturbed by exploration and

mining (SAMI, 2005/2006:2). The Act addresses many issues, including the following (SAMI, 2005/2006:1):

- Transformation of the minerals and mining industry
- Promotion of equitable access to South Africa's mineral resources
- Promotion of investment in exploration, mining and mineral beneficiation
- Socio-economic development of South Africa
- Environmental sustainability of the mining industry.⁴

Prior to 1 May 2004, mineral rights in South Africa were held privately or in some instances by the State. With the enactment of the MPRDA, all mineral rights are vested in the State. This fact might seem progressive in that it represents an effective nationalisation of mineral resources by the state. However, in reality it has simplified the process of acquiring prospecting and mining licences as the corporations are under no obligation to negotiate access to minerals with individual or communal land owners or land holders. They effectively only need to negotiate with the ministry of minerals. Land owners and land holders are simply 'notified' and 'consulted', the limitations of the above phraseology should be noted. This situation has disempowered communities and individual land owners, especially as the consultative clauses in the Act does not require consent or permission by land owners or land holders before mining operations occur (prior consent).

Transitional provisions in the MPRDA allow mining companies to convert their existing 'old order' rights to 'new order' rights. The transitional provisions contemplate three categories of old order rights:

- Unused old order rights, which are mineral rights in respect of which no prospecting permit or mining authorisation had been issued under the former *Minerals Act No. 50 of 1991* (South Africa) (the 'Minerals Act') or, where such an issue had occurred, no prospecting or mining activities had taken place as of 1 May 2004.
- Old order prospecting rights, which are rights to prospect in respect of which a prospecting permit had been issued under the Minerals Act and prospecting had taken place prior to 1 May 2004.
- Old order mining rights, which are rights to mine in respect of which a mining authorisation had been issued under the Minerals Act and mining had taken place.

Holders of unused old order rights were required to apply for prospecting or mining rights under the MPRDA within one year of 1 May 2004, i.e. before 30 April

2005. Under the MPRDA, old order prospecting rights and old order mining rights and the related permits and authorisations granted under the Minerals Act, will continue to be valid for the period granted under that legislation, subject to a maximum period of two years in the case of old order prospecting rights and five years in the case of old order mining rights. To continue thereafter with prospecting or mining operations, holders of order prospecting and mining rights are required to apply within these periods to convert their rights to the 'new order' prospecting and mining rights provided for by the MPRDA.

The intention of the clauses in the MPRDA dealing with old and new order rights was to break the monopoly of the dominant, traditionally white owned and controlled mining corporations and allow for new emergent black mining interests. While the issue of old order rights versus new order rights might seem progressive in that it has effectively undermined the monopoly over mining by a handful of corporations that dominated the industry historically, the same clauses have given rise to corruption within government. Many officials within the Departments which constitute the economic cluster, particularly the DME and DTI, have used their access to privileged information to register their own 'junior' prospecting and mining operations. This has defeated the stated objective of broad based economic empowerment, and has turned government into a vehicle for individual capital accumulation and class mobility (The Bench Marks Foundation, 2008). The unintended consequences has been a feeding frenzy by individuals who had access to geological information, often as a result of their privileged positions as civil servants within key economic ministries in either the national or provincial spheres of government. In order to protect their interests some of the traditional or established mining corporations also began to court civil servants or persons perceived to be 'politically connected.'

In terms of the MPRDA, prospecting rights are initially granted for a maximum period of five years and can be renewed once upon application, for a further period of up to three years. Mining rights are valid for a maximum period of 30 years and can be renewed on application for further periods, each of which may not exceed 30 years. Provision is made for the granting of retention permits in circumstances where prospecting has been completed but mining is not commercially viable, which has a maximum non-renewable term of three years. A wide range of factors and principles, including proposals relating to black economic empowerment and social responsibility and evidence of an applicant's ability to conduct mining optimally, are pre-requisites for the approval of such applications.

One of the first major changes brought about by the new Act is clearly stated in the Preamble: 'Acknowledging that South Africa's mineral and petroleum resources belong to the nation and that the State is the custodian thereof'.

However, this has effectively disinherited traditional communities and even commercial farmers on whose land minerals may be found. Should the state issue a prospecting or mining licence to a mining company, the traditional community on whose land that mineral is found has no right of refusal and has to accept relocation. This suggests that the MPRDA is in contradiction with the 'property clause' in the Constitution of South Africa. While this act effectively removes the property rights of communities it greatly increases those of mining companies. Interestingly Judge Hartzenberg in a recent judgement found that the MPRDA is indeed in contravention of the Constitution (Creamer Media Reporter, 2009).

Furthermore (in *Chapter 1* under definitions), 'broad based economic empowerment' means a social or economic strategy, plan, principle, approach or act which is aimed at:

- Redressing the results of past or present discrimination based on race, gender or other disability of historically disadvantaged persons in the minerals and petroleum industry, related industries and in the value chain of such industries.
- Transforming such industries so as to assist in, provide for, initiate or facilitate:
 - the development of management, scientific, engineering or other skills of historically disadvantaged persons
 - the involvement of or participation in the procurement chains of operations
 - the socio-economic development of communities immediately hosting, affected by the supplying of labour to the operations
 - socio-economic development of all historically disadvantaged South Africans from the proceeds or activities of such operations.

The impact and consequences of mining on local farmers and traditional communities on whose land the mineral is found is once more overlooked in this very broad definition of 'historically disadvantaged South Africans'. The state in the local, provincial and national spheres will by implication argue that economic development, job creation and poverty alleviation for all formerly disadvantaged South Africans will result from a mining project and that these benefits are more important than the loss of land, the destruction of culture, the destruction of the physical environment, the destruction of subsistence agriculture, and jeopardising the health and welfare of local communities. This is what has happened in practice, as Social and Labour Plans are negotiated with local and provincial government and integrated into local economic development policies (LEDs) and Integrated Development Plans (IDPs) without consultation with, or concern for local communities. In practice it

has proved almost impossible for local communities to have sight of such negotiation plans from which they have been excluded.

In *Chapter 2* (Fundamental principles) three objectives specifically deal with 'social development'. The objects of this Act are to:

- Substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation's mineral and petroleum resources.
- Promote economic growth and mineral and petroleum resources development in the Republic.
- Promote employment and advance the social and economic welfare of all South Africans.

Mining companies presented a principled resistance to those aspects of the MPRDA which they claim causes an investment slowdown, threatening an investment strike in 2006 if the legislation was not amended.

The government had come under heavy criticism that, while other countries were exploiting a global mining boom, South Africa was missing out. However, South African mining investment appeared to have turned a corner after a sharp decline in the first three quarters of 2006, a report released on May 17 by the Bureau for Economic Research (BER) showed (Hill, 2007).

The Business Times reported that according to an anonymous poll of mining executives by Canada's Fraser Institute, there clearly is a problem.

Nine percent of respondents are so strongly opposed to the new mining laws they will not invest in SA, and 36% regarded the new laws as a strong deterrent. SA's mining regulations were regarded as the 53rd worst out of 68 mining regions. SA ranked the overall 50th most attractive mining destination [in 2006], falling from 25th before the new law was promulgated in 2004 (Laing, 2008).

Pro-corporate lawyer Peter Leon of Webber Wentzel Bowens, who is also senior vice-chairman of the Mining Law Committee said the following at a Merrill Lynch Mining Indaba in 2008,

In view of what appears to be a serial decline in South Africa's mining industry at a time when the world experienced its longest – six and a half year – commodity

boom, one has to ask how this happened and more importantly, how can it be remedied. In my view, South Africa's mining regime plays a principal role in this (Laing, 2008).

The South African government's schizophrenia with regard to its national legislation versus the emphasis on globalisation has put it in a thorny situation. It also stems from the fact that the ruling party is attempting to pursue a programme of creating a black middle class while simultaneously trying to appease working class allies in COSATU and the South African Communist Party (SACP). The nationalisation of South Africa's mineral resources is contradicted by its commitment to World Bank, International Monetary Fund and other global market mechanisms and agreements. For mining corporations these global commitments supersede national legislation, thus 'Italian investors in Marlin and Red Granti last year launched their €266 million expropriation claim against the South African government under the World Bank's dispute settlement facility, and a flood of similar cases may start' (Laing, 2008). South Africa turned that corner when the DME promised to remove or amend those sections of the Act that in the opinion of industry players, represented bottlenecks to their interests. In particular is the fact that EIAs were the responsibility of the Department of Environment and Tourism and that the requirement to consult with communities in the process of the application for the transformation of old order rights into new order rights, represents a slowing down in operationalising mining ventures.

In addition to the investment downturn, mining companies threatened the government with a class action and with being cited internationally for unilaterally undermining their property rights. This came to a head at an international conference in February 2007 where the Minister rapidly retreated from earlier policy; '[t]he commitment by the Minister of Minerals and Energy, Buyelwa Sonjica, at the Mining Indaba in Cape Town on 6 February 2007, to amend the Mineral and Petroleum Resources Development Act (MPRDA), to remove all identified obstacles to mining investment. This, as the first public acknowledgement that amendments were required to address difficulties in the MPRDA, is to be welcomed. The Minister also confirmed the downturn in foreign investment in South Africa's mining industry' (Creamer Media Reporter, 2007).

Not only has the MPRDA seemingly superseded the 'Property Clause' in the Constitution of South Africa (as it applies to land owners and land holders on whose land minerals are found), it has also been used as a blunt instrument to knock the National Environmental Management Act and its host Department – that of Environmental Affairs and Tourism, and the Health and Safety Act and its host, the Department of Labour, into line – establishing the Department of

Minerals and Energy as the 'senior' Department. Thus with the MPRDA, mining corporations are only answerable to the DME with regard to environmental matters and issues of workplace health and safety. The consequences in terms of workplace health and safety can be measured by the rapid increase in mine fatalities in 2007 (Hill, 2007). The consequences for the environment in terms of water (Tempelhoff, 2007) and air pollution (SAPA, 2007, p 7) are already becoming obvious. The former Department of Water Affairs and Forestry (DWAF) suffered a similar fate (SAPA, 2005).

Between 2005 and 2007 the three 'junior' departments each announced amendments to key pieces of legislation that would delegate management and monitoring of key departmental responsibilities to the local sphere of government (Lieberink, 2008). The local sphere is also the least competent and least capacitated sphere of government. This means that mining corporations would be declared innocent of environmental murder and any appeals by affected local communities would be referred back to incapable local governments to deal with.

Conclusion and Policy Considerations

South Africa is a semi-peripheral state that is still heavily dependent on its mining sector and policy makers in general and government departments such as the Department of Mineral Resources, Energy, Trade and Industry, and Labour, believe that South Africa's mineral wealth could be,

- a source of wealth creation
- a possible platform to launch the country to a higher level of economic activity
- a means of black economic empowerment and class formation
- a means to alleviate poverty and create jobs.

Unfortunately, the country is locked into a global economic system that emphasises global integration on the basis of national economic comparative advantage. This model requires that countries abandon import substitution industrialisation in favour of strong export economies. This export orientation is driven by a strong emphasis on the 'free market', i.e. opening up the economies of Africa, Asia and Latin America to the 'benefits' of foreign investment. In implementing a programme of structural adjustment in line with the precepts of the World Bank, the IMF and the WTO South Africa has passed mining legislation and regulations that challenged 'old order' rights of the handful of giant corporations that

dominated the sector under apartheid. South Africa has also passed legislation and regulations that attempts to affect BEE. While the mining sector opened up significantly there were some negative unintended consequences,

- Already politically empowered politicians and senior civil servants jumped on the BEE bandwagon to further empower and enrich themselves. This undermined the intent of the legislation to allow for broad-based empowerment of employees and communities.
- Corporations realising that they could influence political and economic policy as far as the mining industry was concerned, welcomed the presence of senior politicians and government officials as this would assist them to short-circuit legal and regulatory requirements concerning social and labour plans, environmental impact assessments and management plans, labour regulations, and social and labour plans.
- Aspects of the Mining Charter and Balanced scorecards such as the 'living out allowance' and sub-contracting resulted in the unintended consequence of mushrooming informal settlements in which substance abuse and sexually transmitted diseases including HIV/AIDS and TB, spiralled out of control.
- An enormous gap rapidly developed between the political and economic elite empowered through their alliance with and shareholding in the mining sector and the vast majority of poverty stricken South African people.
- The global core-periphery relationship that exists globally as a result of the dominant free market based on neo-liberal principles, has replicated itself in the relationship between Gauteng and predominantly mining provinces as sub-peripheries. The same exploitative relationship exists between South Africa as a semi-periphery and its SADC neighbours in the periphery.
- When minerals prices boomed, this had a close impact on the real economic exchange rate impacting on manufacturing and causing deindustrialisation. Thus mining fails as a platform for industrialisation.
- Where manufacturing depends heavily on mining such as the motor car industry which is the major global consumer of platinum, the sudden downturn in global car sales caused platinum mining to be severely affected.
- South Africa sets the trend for mining in the SADC and the rest of Africa. Much of the mining development in the rest of SADC and Africa is managed from Johannesburg. Bad practice in South Africa will be replicated elsewhere in Africa under legal and regulatory conditions that are far more relaxed.

The impact of the global financial crisis and the volatile resource market challenges the 'sanctity' of the free market. For South Africa to move forward in

addressing the challenges of resource dependency and poverty linked to the minerals industry identified in this chapter, the following should be taken into consideration.

In the post 2009 election the newly elected ANC government has separated the portfolios of minerals and energy, creating two separate departments. This is a progressive step; however the government's energy policy and its environmental policies are highly contradictory. Environmental policy commits the government to a reduction of CO₂ and SO₂ emissions, implying shifting energy production away from coal fired power stations towards alternative energy sources; yet energy policy commits government to the reactivation of mothballed stations and the construction of many new coal fired power stations (Pressend, 2008). This contradiction between environmental responsibility and energy provision has its roots in the empowerment policy of government which has seen a massive entrance by 'juniors' into coal mining (Groenewald, 2009). Contradictions between government, mining, communities and the environment are commonplace in all sectors of the mining industry and mining has become a free-for-all for politicians (Templehoff, 2009), civil servants, syndicates and illegal miners, with the former Department of Minerals and Energy having a reputation for corruption and incapacity (van Wyk, 2008). South African policy frameworks serve as examples to other SADC countries and where such frameworks or their implementation becomes contradictory, the same problems experienced by South Africa will be replicated in other SADC countries. It is therefore imperative to resolve policy and policy implementation problems in South Africa.

Noting that South Africa and SADC are water scarce countries, in which food and water security will become major challenges of the future, the opportunity costs and benefits of mining versus the environment and food security must be accurately calculated and factored into policy decision making.

While the National Union of Mineworkers and the government contested the recent Hartzenberg judgement (Creamer Media Reporter, 2009) regarding land rights and mineral rights, the judgement opens the door to fairer compensation to communities who are faced with the prospect of losing their land to mining. South Africa needs to urgently resolve the contradictions between private land ownership and communal land ownership, which makes the deprivation of communal land users by the mining industry so much easier.

While mining provides a relatively easy platform for the formation of a black middleclass, the problems associated with mineral resource commodities and dependency on minerals production rather than on manufacturing means that wealth and prosperity can turn into a spectacular collapse in a very short space of time (Tempelhoff & Phillips, 2009). South Africa has to develop economic and

industrial policies that will advance the country beyond mining and its associated dependence on cheap labour, as well as its destructive consequences on the environment. The focus needs to shift away from a dependence on unsustainable extractive industries to more sustainable manufacturing, finance and information based industries.

While mining corporations' subscription to, and participation in programmes of self regulation such as Transparency International, industry charters and the Mining Minerals and Sustainable Development (MMSD) initiative, it is important to remember Naomi Klein's missive, 'We know that corporates are not just satisfied with leeching your communities and poisoning your bodies. They want to be loved, which is why government invented corporate social responsibility. For them there is no problem that is so big that it cannot be solved with fantastic public relations' (Klein, 2007: 120). Strong, independent social monitoring of both mining and of government regulation is essential for sustainable and responsible economic development in SADC.

Appendix 1

Table 10

Personality	Former Political Position	Position in Mining corporation	Corporation
Tokyo Sexwale	Premier of Gauteng	Chairman Mvela Holdings	Mvelaphanda
Mane Dipico	Premier of the Northern Cape	Vice Chair De Beers Consolidated Mines. Chair National Energy Corporation of South Africa	De Beers
Joaquim Chissano	Former President Mozambique	Director Board of African Rainbow Minerals	African Rainbow Minerals
Patrice Motsepe	Closely Associated with the ANC	Non-Executive Chair: African Rainbow Minerals (ARM), Johannesburg; Non-Executive Chair: Harmony Gold Mining Company Ltd.; Chair: Naledi Mining, Orkney; Chair: Future Mining	
Mane Dipico	Premier Northern Cape. Former Chairman ANC NC. Former Central Committee member SACP	Vice Chairman	De Beers Consolidated Mines

Personality	Former Political Position	Position in Mining corporation	Corporation
Alistair Ruiters	Director General, Department of Trade and Industry	CEO	Ehlobo Holdings (Pty) Ltd
Manana Bakane Tuoane	Director General North West Province	Non-Executive Director	African Rainbow Minerals

Source: The Bench Marks Foundation, 2008

Notes

- 1 The USA is used because it is a major economic partner to South Africa and SADC countries. Reference is also made to the European Union.
- 2 See appendix 1 for confluence of political and economic empowerment of senior ANC people.
- 3 George Orwell invented the notion of Newspeak in the novel '1984' where he defined it over ten pages. Relevant to this paper is the notion that words are turned into their opposites, thus 'war is peace', 'freedom is slavery', 'ignorance is strength' etc. (Orwell, 1983: 745). The word 'consultation' in the MPRDA could similarly be interpreted as its opposite as communities actually have no right to refuse a mining operation. Consultation is a strange almost 'medical term' in that if a patient consults a doctor, this implies an unequal relationship in that it is assumed that knowledge and therefore power (Foucault, 1994) resides with the doctor. The patient (or subject) lacks knowledge and therefore power and as a result subjects him or herself to the doctor. Consultation in the MPRDA should really be replaced with negotiation as the latter term implies an equal relationship. However, as long as communities remain uninformed about the negative impacts of mining they will lack full knowledge, and therefore the power to engage in a meaningful negotiation with mining corporations that would result in an outcome beneficial to communities.
- 4 Vandana Shiva notes the problematic issue of terms like 'sustainable development' when she writes, "Environmentalism" has finally become part of the dominant discourse; "development" has given way to "sustainable development"; and "growth" has given way to "green growth". Yet the ruling paradigm about environmental issues continues to be biased in favour of the North, and the elites of the South.' (Shiva, 1991).

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The Dualistic Nature of Fisheries and Policy Responses in Mozambique and South Africa

Small-Scale Fisheries, Poverty and Policies

Moenieba Isaacs and Horácio Gervásio

Introduction

With the end of the civil war in Mozambique in 1992 and the apartheid regime in South Africa in 1994, new spaces were created to formulate fisheries' policies guided by democratic principles. In 1994 the new Fisheries Master Plan was promulgated in Mozambique and in 1998 the Marine Living Resources Act in South Africa – both documents attempted to address socio-economic development for marginalised coastal communities. Coastal communities in southern Africa have depended on the marine resources for their livelihoods for many generations through low-technology gear in the coastal zone of 5 nautical miles. Small-scale fisheries are closely linked to poverty, vulnerability and livelihoods of fisher households and it is important for fisheries policy to consider this when reforming and developing policy. This paper reflects on the marine fisheries policy reforms and development in both countries. It also deals with the concepts of vulnerability and poverty within the small-scale sector.

The Mozambican case study reflects on the policy reform aimed at supporting artisanal fishers to develop into semi-industrialised fishers through the Fisheries Master Plan of 1994. This plan strongly supported the promotion of semi-industrial ice-trawlers as the key reference to fulfil the overall objectives of the small scale fisheries development. The original idea was that through the free-market system artisanal fishers would gradually evolve to a more semi-industrial fishing by acquiring advanced technology for fishing or processing fish at the landing site. The Fisheries Master Plan, however, failed to address the development of artisanal fishers as they continued to compete for the same marine resources and markets, at times resulting in serious conflicts. During middle 2009 the government approved the New Fisheries Master Plan (NFMP) and the first Artisanal Fisheries Development Strategy (AFDS). These policy instruments demonstrate the political will for a more pro-poor fisheries policy in Mozambique. Although there have been some advances at policy level, there

are still many challenges at community level – for example, defining who are the poor fishers, organising fishers to participate in the governance structures, educating fishers about rights, and the necessary processing and marketing infrastructure.

The South African case study focuses on policy reforms in fisheries aimed to broaden access to marine resources and alleviate poverty through an Individual Transferable Quota (ITQ) rights allocation system. A consequence of this system was the creation of poverty traps for small enterprises who were unable to compete with large-scale commercial industries. The same system left many poor fishers with no access rights as they were unable to conform to the criteria of the ITQ system. In the end, it neither alleviated their poverty nor reduced their vulnerability. In 2007 the fisheries department reviewed its position on access rights to poor fishers by starting a new process to develop a small-scale policy

Fisheries, vulnerability, and the ‘poverty trap’

Chambers (1989:1) defines vulnerability as ‘exposure to contingencies and stress, and difficulty in coping with them’. According to Hogan and Marandola (2005) ‘the social advantages and disadvantages, in the form of assets and opportunities, is the basis of the socioeconomic vulnerability... vulnerability is associated with social disadvantages which simultaneously produce and are reflections and products of poverty’. They expand the concept of vulnerability to include two sets of themes: poverty, exclusion, and marginalisation on the one hand and the environment on the other. The causal effects between these sets of concepts are complex. In some circumstances poor, excluded and marginalised small-scale fishers may be impoverished by a declining fishery base and thus forced by their poor conditions to degrade the fisheries stocks further. In other circumstances, living conditions of the poor communities can be worsened due to the fishery and environmental degradation problems which are mostly caused by the actions of others (for example the large-scale fishers, oil explorers and tourism development projects).

The link between fisheries and the ‘poverty trap’ can be traced back to Gordon’s (1954) paper on open access fisheries, as well as Hardin’s (1968) article on the tragedy of the commons. In this context, open access to fish resources leads to the proliferation of people entering the fisheries sector, which over time results in over-fishing, an elimination of the resource rent, and ultimately in the impoverishment of the fishers and their communities (Pearse 1989, Panayotou 1982, Bailey & Jentoft 1990, FAO 2000, World Bank 1992). There is no doubt

that while overexploitation is a major cause of poverty, it is not necessarily *the* major cause (Béné 2003: 953). In Panayotou's (1982) analysis on the particular problems of small-scale fisheries, he points to the fact that most fishers have a low alternative cost of labour and with easy access to, and difficult exit from, the fisheries sector they become 'trapped'. In other words, 'they are fishermen because they are poor' (Panayotou, 1982). This highlights the role of fishing as an employer of last resort, where those falling out of the agricultural system manage to eke out a living by fishing (FAO, 2000). Common property resources are therefore extremely valuable to poor people and any attempt to close the participation may result in increased poverty (Hara 2000, Jul-Larsen *et al.* 2003).

Béné (2003) argues that institutional dynamics are paramount in understanding poverty in small-scale fisheries. He defines socio-institutional mechanisms as 'the set of rules, norms, conventions, institutional arrangements, forms of co-ordination or social (class) organisation and decision-making processes through which the social actors (individuals and collectives) interact to gain and maintain their command (access, use and control) over the resources and benefits extracted from them' (Béné, 2003: 950). Although people may use these mechanisms indistinctively, it is important to keep in mind the difference between 'poverty reduction', 'poverty prevention' and 'poverty alleviation'. Failure to do so is likely to lead to confusion, inappropriate policies and undesirable outcomes (Béné, 2004:15).

Poverty reduction seeks to lift people out of poverty through small-scale enterprises, the accumulation of capital, and the generation of wealth, which is expected to lead to overall economic growth. If the purpose of fisheries reform is to achieve poverty reduction, an individual rights system would be appropriate due to the fact that poverty reduction leads to changes in income-poverty (i.e. the total number of people below a given poverty line) (Bene, 2004).

Poverty prevention seeks to prevent people from sinking into deeper poverty through the creation of a safety mechanism and welfare benefits, thereby mitigating the impact of poverty and reducing vulnerability. It refers to the 'role of an economic activity in helping people to maintain a minimum standard of living (even when this minimum standard of living is below a given poverty line) and which prevents them from falling any deeper into destitution'. Thus, if the purpose of fisheries reform is poverty prevention, an open access system is appropriate. Poverty alleviation 'is used as an inclusive concept encompassing both poverty reduction and poverty prevention' (Bene, 2004:11).

Table 2.1: Two Dimensions of Poverty Alleviation in South African Fisheries Policy (adapted from Béné, 2004)

Poverty reduction	Poverty prevention
Lifts people out of poverty, <i>through</i> • capital accumulation • wealth generation leading to • economic growth • capital accumulation	Prevents people from falling into deeper poverty, <i>through</i> • safety mechanisms • welfare function leading to • poverty impact mitigation • reduction of vulnerability
Policy example: Individual transferable quotas to small enterprises	Policy example: Collective rights system, exclusive zone, Territorial User Rights Fisheries (TURF)

Table 2.1 shows that the Individual Transferable Quotas (ITQs) system of rights allocation currently supports small enterprises and serves a poverty reduction function. Because the system is individualistic in nature it acts as a poverty reduction function only to those small enterprises with fishing rights. This policy process enabled those with the necessary skills to access rights, provided they conformed to the formal prescriptions of setting up fishing companies able to purchase the infrastructure to harvest and process and have market access, and were able to reduce their poverty. However, many new entrants were unable to succeed as they lacked the necessary financial resources, skills in management, processing and marketing. The established companies viewed this as an opportunity to access more raw products and soon trapped many new entrants into joint venture agreements to harvest, process, and market their rights in return for cash payments. Furthermore, established (large and small) companies maintained their rights allocation through the reform process by establishing worker shareholding schemes and improving working conditions. Their main argument was that they are able to provide secure, quality jobs based on the government's minimum wage regulatory framework. It was assumed that the benefits of rights allocation and jobs would trickle down to vulnerable coastal communities and act as a poverty prevention function. While the reform process enabled some fisher households to reduce their poverty levels, the formal prescriptions of the allocation regime constrained the majority of fishers; artisanal fishers were not recognised in the formal allocations to fish for a livelihood and to access rights. The fisheries department was not considering any collective rights regimes, exclusive zones or Territorial User Rights Fisheries (TURF) which could reduce vulnerability and mitigate their poverty. A consequence of the allocation system

was to increase the level of poverty in many fisher households as they were left with no access to the marine resources. Some resorted to poaching while many households depend on government grants to survive.

In the small-scale fisheries there are additional constraints, including technical resource limitations (the small-scale fleet can only utilise the near-shore resources) and increased competition with the industrial fleets. Small-scale fisheries face credit constraints as a lack of secure collateral limits ordinary bank lending, leaving these fishers to middlemen and the informal credit system (Panayutou, 1982). The effects of climate change have seen changes in ocean temperature, resulting in the movement of species such as lobsters, sardines, and anchovy, away from their habitat. This shift in resources has had a negative impact on jobs and livelihoods of communities along southern Africa's coastline. The livelihoods framework (Chambers & Conway, 1992; Carney, 1998; Scoones, 1998) organises the various factors which either constrain or provide opportunities to the poor, highlighting their interdependence. It recognises multiple actors, acknowledges multiple livelihood strategies and emphasises multiple livelihoods' outcomes. A policy ideal of this framework is that households should become more resilient to external shocks and stresses (e.g. environmental degradation and climate change, external price fluctuations, etc.), less dependent on external support in such circumstances, maintain the long-term sustainability of the resources they depend upon, and not engage in activities which compromise the livelihoods of others. Long-term sustainability is seen as a necessary condition for ensuring poverty reduction over time.

The resilience of a household depends in part on its ability to obtain secure access to the resources needed to generate its livelihood. Access to resources is often riddled with conflict due to complex social relations within communities. A household's power to secure access depends on the level of human agency present, its social position in relation to other households in the community, the extent to which it has the necessary assets to exploit livelihood opportunities, and its ability to defend its access rights (de Haan & Zoomers, 2005:32). While the livelihoods approach suggests that the poor possess the necessary agency to help themselves out of poverty (see Du Toit, 2004), the poor in coastal communities in southern Africa often do not possess sufficient assets to overcome poverty or to challenge the power base in the community.

The subsequent case studies demonstrate the challenges facing fisheries in both South Africa and Mozambique, highlighting the lack of political voice, social marginalisation, and resource constraints due to over-fishing. In addressing these challenges, policy reforms within the two countries have seen a significant divergence in approach towards the poverty gap.

The South African case study

South Africa's Fisheries

In terms of catch, South Africa is the largest fishing nation in Africa but only ranks 30th among fishing nations worldwide. At the southern end of the African continent South Africa's coastline stretches nearly 3 000 km, from the Orange River in the west on the border with Namibia, to Ponta do Ouro in the east on the border with Mozambique. While the western coastline is highly productive, the eastern coastline is considerably less productive but has mentionable species diversity. The South African commercial fisheries employ approximately 43 000 people directly while investments in fixed assets have an insured value of approximately R12 billion. More than 3 000 commercial fishing right holders deploy some 1 400 fishing boats each year in South Africa's exclusive economic zone (EEZ). The country's wild commercial fisheries have seen an increase in their landed value from approximately R5.1 billion (835 000 tons) in 2005 to an estimated R5 469 billion in 2008, raising as a result of supply shortfalls for protein across the planet which forced increased food prices (Feike, 2008).

Unlike the rest of Africa, Asia or Latin America, South Africa developed an industrial fishery *before* developing organised artisanal or small-scale fisheries. The industrial trawling and purse seining, processing and market infrastructure of species such as hake, represent the equivalent of what one would find in a western industrial country. In contrast, however, the artisanal fishers who were dispossessed of their rights, fished mostly for subsistence, just like many other fishers in the rest of Africa (Fishing Industry Handbook-FIH, 1997; Marine Fisheries White Paper for South Africa, 1997; Mathew, 1996; Payne and Cochrane, 1994). **Table 2.2** below indicates the nominal catch and estimated value of South African commercial fisheries.

The commercial fishing industry is divided into quota and non-quota sectors, the former being significantly larger in terms of value and quantity. Quotas currently exist for hake, Agulhas sole, pilchard, anchovy, rock lobster and abalone. Horse mackerel is managed according to a precautionary upper limit on catches. The quota sector of the industry comprises a few large companies and a number of small and medium-sized operators, who tend to be less well organised in terms of infrastructure and distributive networks, operating in the less capital-intensive sectors. Permits are granted to individuals or companies to catch unlimited quantities of non-quota species using defined technologies. The structure of the industry reflects the inequalities of the past dispensation despite Government's focus on correcting the imbalances of the

Table 2.2 Wholesale Value of Production (2005)

Fishery	Catch (tons)	Landings (tons)	Value (R'000)	% Of total value
Demersal Offshore Trawl	186 111	131 669	2 348 720	6.3
Demersal Inshore Trawl	12 799	8 812	122 358	2.4
Total Demersal Trawl	191 098	140 481	2 471 078	48.7
Purse Seine (Pelagic)	564 050	564 050	1 148 850	22.6
Rock Lobster (SC)	322	228	50 889	1.0
Rock Lobster (WC)	3 045	3 045	401 786	7.9
Crustacean Trawl	286	286	17 826	0.4
Line Fish	17 756	17 756	423 720	8.3
Demersal Longlining	8 984	8 984	302 271	6.0
Abalone	228	228	86 138	1.7
Miscellaneous Nets	4 182	4 182	16 948	0.3
Oysters	30	30	1 050	0.0
Mariculture	1 287	1 287	153 643	3.0
Seaweed	868	868	3 179	0.1
Total	799 948	741 425	5 077 378	100.0

Source: Fishing Industry Handbook (2007:55)

past by promoting small and medium enterprises among previously disadvantaged individuals.

The commercial future of the South African fishing industry is increasingly dependent on the sustainable utilisation and on the sound management and conservation of its wild marine life resources. It is, therefore, in South Africa's interest to ensure that the utilisation of marine life resources within its EEZ takes place in a sustainable manner, with unsustainable fishing practices reduced or eliminated in their entirety.

Policy Development

South Africa's fisheries sector has been industrialised since the early 1900s with fully utilised resources. By comparison, poor fishers had no legal access to marine

resources prior to 1994, relying on recreational permits to fish in open access areas. This has seen the reallocation of fishing access rights become an area of contestation. As part of its 1994 election campaign, the African National Congress (ANC) introduced the Reconstruction and Development Programme (RDP) focused on providing an integrated, coherent socio-economic framework for dealing with the consequences of apartheid, including the alleviation of poverty and addressing the lack of services for the poor majority. Among other things, it sought to uplift impoverished coastal communities by ensuring that they could gain access to marine resources (ANC 1994: 104). The ANC led government maintained that marine resources had to be managed and controlled for the benefit of all South Africans, especially those communities whose livelihood depended on resources from the sea. In support of this position, government proposed the introduction of legislative measures establishing democratic structures for the management of sea resources. In addition, the new government set itself the task of formulating a fisheries policy that would address popular expectations for a more equitable redistribution of access rights, while at the same time maintaining an internationally competitive fishing industry.

Questions remain concerning the extent to which government has succeeded in restructuring access to marine resources in a way that alleviates poverty and reduces the vulnerability of poor fishing communities. Vested business interests succeeded in convincing government that in order to safeguard the prospects for international investment, there should be no deviation from free market principles. This saw the RDP dropped in 1996 in favour of a home-grown structural adjustment programme called Growth, Employment and Redistribution (GEAR). Two years into democracy the post-apartheid reform agenda had become a neo-liberal one which included privatisation, the removal of government subsidies, downsizing the public sector, and the encouragement of small black enterprise (Bond, 2000). Although government programmes were intended to achieve both economic growth and equity, these efforts did not create jobs for the poor and unemployed. The move towards neoliberal policy prescriptions had a direct impact on South Africa's fisheries. Formalised in 1998, the Marine Living Resources Act (MLRA) failed to address the social and economic challenges facing poor communities, especially with respect to maintaining their livelihoods.

Clustering artisanal fishers (informal fishers and recreational fishers on the West Coast and South Coast) with subsistence fishers (mainly found on the Eastern Cape and KwaZulu Natal coasts), the MLRA proposed four mechanisms to address access rights and redistribution: empowerment schemes; room for community initiatives; creating new opportunities for new entrants to the industry; and better labour relations for fishers and processing workers. The

new fisheries policy also proposed a system strongly influenced by Individual Transferable Quotas. Under the MLRA, Individual Transferable Quota fishing rights were allocated to individual small-scale fishers. However, while improved access rights under the fisheries reform were intended to alleviate poverty by enabling wealth generation activities, the result was that this new action space was quickly captured by the elite in the community (teachers, artisans, shop owners, local councillors) rather than those they were intended to benefit – the fishers in the community. Even those fishers with limited literacy and numeracy skills were unable to comply with the application requirements (Isaacs, 2003; 2006). In addition, established companies were encouraged to enter equity ownership arrangements with black-owned companies, sell shares to employees, and enter into harvesting and processing joint ventures with small-scale enterprises. The policy favoured small and medium-size enterprises (SMMEs), provided they form close corporations or private companies rather than supporting the position of the artisanal and subsistence fisher.

Policy considerations for South African poor coastal communities

Barberton and Kotze (1998) use the term ‘action space’ to refer to new opportunities for South Africa’s poor that have arisen in the ‘new’ democratic South Africa. The formal action space is determined by the policy reform process for fishing rights allocation and the procedures and regulations which followed. New entrants and established companies are mainly active in the formal action space. In contrast, the informal space is primarily occupied by the marginalised fishing communities who continue to voice their discontent with the allocation process and the way the benefits of the new policy are being captured by elites, and marginalises poor fishers in the informal action space. In other words, the formal action space is occupied by those who were successful in obtaining fishing rights, while the informal action space is occupied by those on the periphery. The split in formal and informal space can thus be explained within a class context in fishing communities. Members of the dominant group (the elite), or those with the necessary social, political and human capital, are able to succeed in the formal action space of rights allocation. This is often at the expense of the subordinate group – the marginalised, poor people without the necessary capital to succeed in the fisheries sector. The community elite mainly used their political capital (e.g. their political power and privilege to access information and decision making processes) together with their social capital (e.g. access to economic associations and financial resources facilities) to access rights. However, it was not at all easy for the community elite to establish their small

companies in this sector. They found it very difficult to survive without forming agreements with the established industries. The economic viability of the quota allocation, the lack of technical and management skills, the lack of start-up or investment capital, and the monopolistic business systems and structures of the established companies continued to maintain their competitive advantage over the new entrants (Isaacs, 2005). To respond to these challenges, new entrants entered into joint venture agreements to harvest, process, and market activities.

In the informal action space the marginalised groups and fishers found themselves constrained from successfully gaining access to fishing rights by social disadvantages, lack of assets, limited communication skills, and low numeracy and literacy skills. Some of these groups showed their discontent with the formal rights allocation process by forming alliances such as the Artisanal Fishers Association, Masifundise and the Legal Resource Centre, to embark upon litigation against the formal rights. The court case has been a mechanism for the poor to show their discontent in the public fora, providing leverage for a legal settlement agreement. This has resulted in the rewriting of the small-scale fisheries policy. It has seen government adopting steps to assist poor coastal fishing communities by restoring the principles and practices of community management, and formalising the position of fishers who were left outside the formal system between 1994 and 2007.

In South Africa, however, the challenge remains how to merge an ITQ system with collective rights in order to alleviate poverty in the fishing communities. To promote sustainable livelihoods and community based systems, the rules of exclusion and subtractibility need to be applied. Subtractibility refers to a set of mechanisms designed by the community to regulate use of resources among its members and set rules for self governance. The community should set rules governing questions of '*who*' should participate in harvesting the benefits of the resources. Currently there is a lack of experience in self-governance systems, a shortfall in infrastructure to harvest, market and process, as well as a lack of community organisation to manage such a system in the fishing communities of South Africa.

Improving access rights system to reduce vulnerabilities

The action space created by governance reforms saw the development of a number of different initiatives intending to reallocate fishing rights to address coastal poverty. The first attempt was a carry-over from the apartheid regime in the form of community quotas and the formation of fishing community trusts.

This system did not work, primarily because it was a top-down initiative where communities were not actively engaging in harvesting or the economic opportunities to reduce poverty. Instead, the elite in the communities were accessing the benefits with no support from the state in managing and distributing the generated funds. The second attempt was through formal allocation rights whereby groups had to form small enterprises and companies to apply for fishing rights. Although some fishing rights have been reallocated, small enterprises which government expected would create employment, have struggled. It was clear that to ensure real transformation of the fishing industry, the state would have to play a more interventionist role by supporting small emerging enterprises and ensuring that change takes place in established companies (Isaacs *et al.* 2004). The third attempt was through piloting subsistence permits where Marine Coastal Management (MCM) promoted the creation of subsistence committees. The following year the committees dissolved to form small enterprises to apply for medium rights allocation. The groups and individuals who were not incorporated in the medium and long-term allocations were accommodated through interim relief measures for West Coast Rock Lobster (WCRL) and line fish. Although the action space created new opportunities for coastal communities to access rights, in reality it failed to improve livelihoods and reduce vulnerability.

Although governance reform processes creates an action space for fishers to access fishing rights, fishing communities remain vulnerable. The workers in these communities are dependent on reasonably paid jobs, but in reality there has been a loss of jobs and the employment situation has in general been even more insecure as a result of an increase in temporary or seasonal employment. Many small rights holders have, due to the difficulties in running a profitable business on their own, entered into catching, processing and marketing agreements with established companies in exchange for small monthly payments, but this solution will only last as long as they have a rights allocation.

If the objective of the South African state is to alleviate coastal poverty to impact positively on the livelihoods of the poor fishers and reduce vulnerability, more state support and intervention is necessary. To protect and secure the livelihoods of small-scale fisher households, the state needs to ensure that their fishing zones are protected from outsiders by declaring the 3–5 nautical mile inshore zone exclusively for the use of small-scale fishing (an example of this can be found in Chile). Thereby these goals could be achieved. Furthermore, the allocation system must be suitable, flexible and adaptable, and must promote multi-species fishing. In addition, rights holders must be reorganised to further the principles of self-governance.

Improving allocation policy to address poverty alleviation measures

Can a fisheries policy in its allocation of rights combine poverty prevention and poverty reduction? Poverty reduction favours an ITQ system which operates more effectively if the system mainstreams micro-enterprises as opposed to medium-size enterprises, and includes regulation that prevents concentration over time. Through small enterprises, the rights holders will accumulate capital and generate wealth and this will enable them to be lifted out of poverty in due time. South Africa's governance reforms created an increase in action space for those small and medium enterprises that were successful in obtaining an allocation to reduce their own poverty.

Poverty prevention favours collective allocation systems like open access, community allocation, basket allocation, preferential or exclusive access for small-scale fishers or through territorial user rights fisheries (TURF) system. Through an exclusive zone fishers will have safety nets, which in turn will lead to reduction in vulnerability and prevent fishers from falling deeper into poverty. The action space created by MLRA never considered community quotas, an exclusive inshore access regime, or a TURF system to reduce poverty among marginalised, poor and vulnerable fishers. Subsistence permits and interim relief permits were thought to perform a poverty prevention function. A possible solution is to create a hybrid system of merging a collective rights and individual rights system. The challenge for policy makers is to integrate this system into local municipality plans, as well as supporting the establishment of organisations and co-operatives that will create a system that is fair and equitable. Furthermore, to create support in small-scale infrastructure and financial support to promote local markets, promote more value-added activities and benefits to fishing communities. The big challenge for policy makers, non-governmental organisations (NGOs), and community based organisations (CBOs) in South Africa is to find creative ways to balance the needs of existing users and potential users of a new small-scale fisheries policy.

The Mozambican case study

Overview

Mozambique has a long coastline (2 500 km) which attracts different interests, namely: fisheries, oil and gas production and other economic activities. It has a 6 400 km² share of Lake Malawi (though little is known of catch magnitudes

or potential), and 2 700 km² of man-made freshwater lake above Cahora Bassa dam (Ministry of Fisheries, 2003). The fisheries sector plays an important role in economy, contributing with about 4% of GDP, approximately 30% of foreign exchange earnings, food security and employment opportunities for poor people (living mainly in rural areas). There are two types of fisheries in Mozambique which operate in direct competition: commercial and artisanal/subsistence fisheries. The commercial fishery is dominated by the large scale industries, using modern technologies and targeting the most valuable species of crustaceous, fish and molluscs. The artisanal fishers are dominated by small operators using traditional technologies and targeting; mainly fish for direct consumption and selling to the domestic markets.

Mozambique's average fish consumption per capita is estimated between 7 and 30 kg/year. Fish consumption may be much higher in coastal communities for two reasons, namely: (i) population density is higher in these areas compared to the hinterlands; and (ii) coastal communities rely much more on fish for food than other resources due to the poor conditions of their livelihoods and few alternatives. Fish resources such as shrimp, lobster, tuna and kapenta are also in high demand by the European Union (62%), Asian (13%) and southern African region markets (25%). However, there is a consensus that the demand for fish products is much higher than the supply in Mozambique, which imports approximately 54 000 tons of fish annually. The demand for seafood is expected to continue growing up to the year 2025; there is thus a need to increase supply from these industries. Taking into account that Mozambique was utilising just a quarter of its exploitable fish resource, the potential annual supply was estimated to be 390 000 tons (Minister of Fisheries, 2000). This production is expected to come from artisanal, semi-industrial and industrial fishing.

Large-scale fishing dominates in many fisheries in Mozambique, but there is little social and economic analysis showing it to be superior to small-scale fisheries. The next section is dedicated to a general description of fishing industry in Mozambique. We argue that during the last 20 years, the number of artisanal and industrial fishers increased. This process, combined to the deficiencies of institutional enforcement and policy development, lead to a rapid increase of the total fishing activity. Although changes have also occurred within the artisanal fishers, less development has been registered in terms of technology innovation, scale of operation, productivity and socio-economic developments among artisanal fishing communities. As a consequence, the fishery sector continued to be a dualistic sector composed by a more export-oriented fishing industry on the one hand, and a more subsistence/consumption-oriented fishing on the other. A challenge for Mozambique's government is to ensure that both large and

artisanal fisheries are developing on a sustainable basis while increasing their contribution to poverty alleviation.

Mozambique's fishing sector

Mozambique's fisheries are dominated by a dualistic structure composed of commercial fishing and artisanal fishing (Ministry of Fisheries, 2003). The commercial fishing includes by industrial and semi-industrial fishing while the artisanal is mostly dominated by subsistence fishers. Artisanal fishing is performed by coastal communities, with or without the use of boats (if used, the length of the boat is less than 10 m). There are approximately 140 000 people directly involved in artisanal fishing. Among them, 70% are subsistence fishers using canoes or fishing without boats as only a very small portion of artisanal fishing boats are motorised. Artisanal fishers work on an individual basis mostly supported by traditional social systems, which have been challenged by other interests from tourism, petroleum, gas, and other industries.

Table 2. 3: Artisanal Fisheries in Mozambique (2008)

Artesanal Fishing	Number
Fishers	140 000
Fishing boats	39 000
Fishing gears	42 000

Source: IDPPE, 2008

Semi-industrial fishers use vessels of intermediate size ($9.9 < 19.9$ m) to capture shrimp and fish. There about 325 semi-industrial fishing boats operating in Mozambique's EEZ, with the majority of the owners Mozambicans. The fishing products from semi-industrial fisheries are mainly exported after being processed and packaged inland. Industrial fishers use larger vessels which are equipped with freezer and cold facilities which enable them to stay at sea for 20 to 30 days, depending on the daily average catch. No products originating from industrial vessels are processed at inland facilities. Most industrial vessels belong to vertically integrated companies that control their business chain, from harvesting and processing through to marketing. These are mostly foreign and joint ventures with European, South African, Japanese and Zimbabwean partners. A total of 63 industrial vessels were licensed in 2008, with 84% targeting the shallow water shrimp in Sofala Bank (Table 2.4).

Table 2.4: Industrial and Semi-industrial Allowable and Licensed Vessels (2008)

Target resource	Industrial	Semi-industrial fleet (Freezing on board)	Semi-industrial fleet (Ice on board)	Total	
Shallow water shrimp	53	17	51	121	31%
Deep water prawn	8	0	0	8	2%
Fish*	2	0	35	37	10%
Kapenta	0	0	222	222	57%
Total	63	17	308	388	100%

* (Long line fishing) Source: Ministry of Fisheries, 2008.

Recent data on total annual catch from both large and small-scale fishers is estimated at approximately 98 000 tons (Table 2.5). However, a large part of the artisanal fishing catches is not covered by the statistical system, so it is presumed that current production might be much higher (approximately 120 000 ton/year). Despite the annual rate of growth registered during 1990s and more between 2005 to 2006, the annual rate of growth of some species (e.g. Crab, shallow water shrimp and other resources reported in Table 2.5) has been decreasing, in both large- and small-scale fisheries.

The reasons for these declines are the subject of debate. However, it is commonly assumed that most of the valuable resources are over-exploited. There are two factors that have created conditions for the over-exploitation of resources:

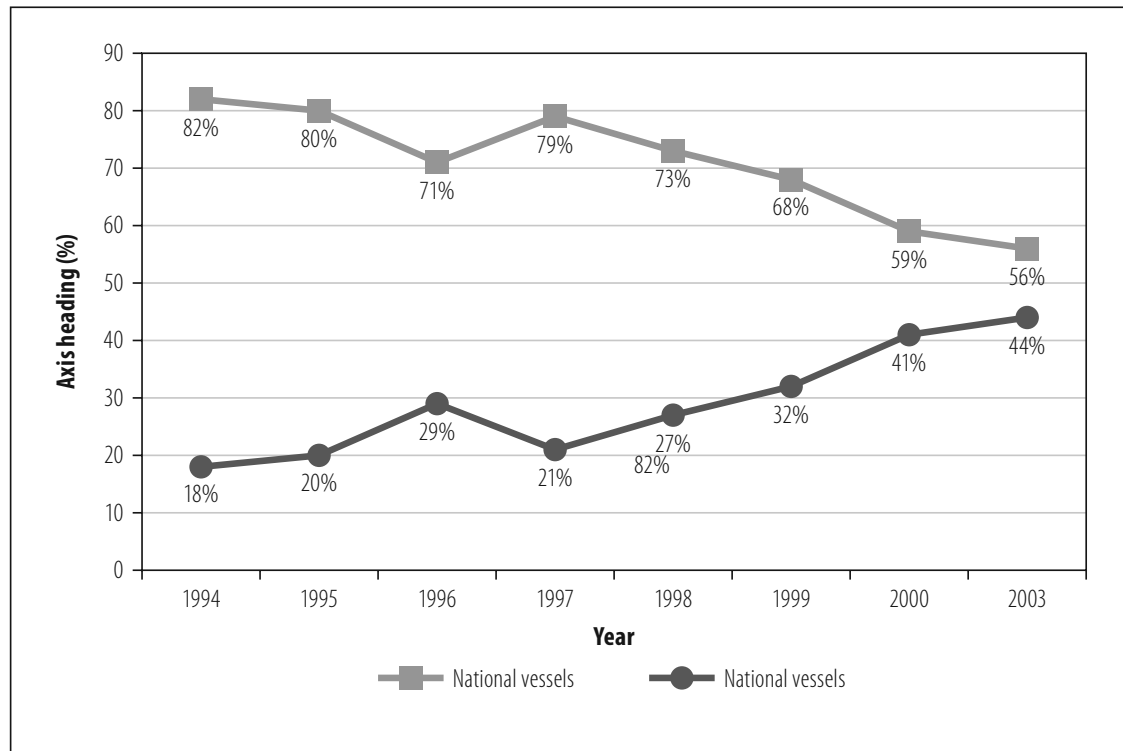
- Until recently, the government continued to encourage more foreign and national entrants to this fishery without a corresponding reduction of the overall fishing effort. Apart from the industrial vessels, government has issued licenses for semi-industrial trawlers equipped with freezers on board (which have a similar capacity to the industrial trawlers). This situation has had a negative impact on overall fisheries. For example, during 2008 a Total Catch (TAC) of 1 660 tons was allocated to 20 companies. However, by the end of the year, only 7 companies remained in operation. The others have requested the cancellation of their quotas and decided to join other fisheries. During the same period (2008) almost 57% of the semi-industrial shrimp companies did not pay their fiscal obligations (taxes), with at least 5 companies of shrimp trawlers abandoning their shrimp quotas (DNAP; 2008).

Table 2.5: Industrial, Semi-industrial and Artisanal Fisheries Catch/Value (2005–2006)

Resource	Semi-industrial and industrial				Artisanal			
	Production (Metric tons)		Value (USD'000)		Production (Metric tons)		Value (USD'000)	
	2005	2006	2005	2006	2005	2006	2005	2006
Crab	158	107	474	321	161	175	482	508
Fish	660	665	1 650	1 663	50 024	57 457	125 060	143 643
Shallow water shrimp	8 520	7 393	68 160	59 144	n/d	n/d	n/d	n/d
Deep water shrimp	1 774	1 803	8 870	9 015	n/d	n/d	n/d	n/d
Nephrops	149	94	1 490	940	240	247	600	618
Cephalopods	165	114	413	285	n/d	n/d	n/d	n/d
Kapenta	12 991	16 017	15 589	19 220	12	5	132	35
Lobsters	1	8	11	88	n/d	n/d	n/d	n/d
Bycatch (mainly fish)	1 830	1 725	915	863	n/d	n/d	n/d	n/d
Tuna	5 396	6 691	10 792	13 382	n/d	n/d	n/d	n/d
Total	31 644	34 617	108 364	104 921	57 748	63 973	139 629	155 552

n/d = no data available

Source: Ministério das Pescas, 2007

Figure 2.1: Foreign and National Vessels in Mozambique (1994-2003)

Source: AMAPIC, 2004

- The government of Mozambique still struggles to ‘effectively patrol its 2 700 km coastline, despite the recent donation of five navy patrol vessels and equipment by the US and South Africa for the interception and inspection of trawlers suspiciously involved in fishing’ (Almeida, 2005). Fishers within inland water bodies and maritime areas are involved in illegal fishing (IUU), which includes misreporting of catches; illegal transshipment of catches at sea; violation of fishing areas reserved for artisanal fishers; unlicensed fishing; and fishing in forbidden or protected areas. Artisanal fishers also use mosquito nets and large plastic bags, harvesting everything in their passage and causing destruction of the sea bed. As such, large quantities of small fish, fingerlings, larvae and basic aquatic plants (food for all types of aquatic species) are probably being harvested by artisanal fishers. A dangerous practice of poisoning fish using pesticides has also been reported to occur in inland waters and some areas up to north of Mozambique, close to the Rovuma River.

Specific management tools have been developed to address concerns of over-exploitation. These can be summarised into four domains: fishers licensing; quotas allocation procedures; minimum mesh size; and a closed season for specific species. Fishing licenses are non-transferable and are issued annually according to the fishing type and fishing gear for semi-industrial and artisanal fishers. Quotas

for industrial vessels are issued at the central level by the National Fisheries Administration Directorate, and allocated on company basis where 'industrial fee payments are made by ton of quota and are payable in advance instalments' (Abiba, 2005). Subsistence fisheries are exempt from licensing fees. Another fisheries management rule is the closed season for the shrimp fishery. In some areas (e.g. Sofala Bank) closed season is applied to all fishers (artisanal, semi-industrial and industrial). However, there are indications that artisanal fisheries have no real benefit from this rule, as shrimp is not their main target resource. The Ministry of Fisheries is aware of this issue. In 2007 a multidisciplinary team was established to carry out a cost and benefits research of the shrimp closed season in Mozambique. No results were found regarding this research.

Difficulties experienced by the fisheries authorities in implementing the fisheries management plans has led to the introduction of co-management initiatives within the fisheries administration system. These initiatives support the foundation of co-management forum at national, provincial, district and local levels. The general objective of these committees is to guarantee that the fishing resources area is utilised at sustainable levels. However, attempts to mobilise semi-industrial and industrial fishers negotiating access rights with artisanal fishers through co-management arrangements, are producing the expected outcomes. Industrial/semi-industrial fishers often have some advantages on decision making due to their political and economic influences. Some management decisions, such as closed seasons for shrimp and fishing gears restriction, are still established according to the industrial fishing interests. The costs and benefits of some of these measures to artisanal fishing are not appropriately addressed. Although the government is formally recognising the priority of artisanal fisheries in its national development agenda, artisanal fisheries still remain the poorest and often 'marginalised' from the fundamental elements of social and economic growth. All these factors need to be addressed in a formal way to ensure that they are part of all development policy frameworks.

Historical Context

During the early 1960s there was no national industrial fishing fleet in Mozambique. Trawling was prohibited, although a small industrial fleet owned by the Portuguese was encouraged. It was only during the late 1960s that industrial fishing began to expand. There was no Fisheries Development Policy during this period, although attempts to organise the overall fishing industry were addressed by the colonial authorities. Following Mozambique's independence (1975), the new government led by FRELIMO (Frente de Libertação de Moçambique) passed

legislation establishing a 12-mile nautical zone along the coast, and the license systems for fishing (Chingono, 1996).

Political instability after independence, however, led to civil war which destroyed much of the country's infrastructure and caused massive migrations of people, mainly to coastal areas (Jacquet, 2007, Chingono, 1996, Lopes and Pinto, 1999). During this period it was estimated that four million people (about one-fourth of Mozambique's entire population), were internally displaced (Azevedo, 2002). By the early 1980s the majority of the rural population were dependent on agriculture and fishing for their livelihood, with artisanal fishing fleets still operating within a subsistence market-based economy (Jacquet, 2007). In 1992 a peace settlement was reached between FRELIMO (Frente de Libertação de Moçambique) and RENAMO (Resistência Nacional de Moçambique) parties and the subsequent democratically elected government increased efforts to refurbish the industrial fishing sector through an open-market policy. In the fisheries sector this policy was developed as a means to promote a national-based fishing industry and to reduce the dependence of the national fisheries industry on foreign aid. In 1997 national poverty baseline studies were carried out, and these revealed that almost 70% of the Mozambican population was living below the poverty line (INE: 1998). Immediately, poverty reduction was established as the foremost priority of the Mozambique development goals. However, poverty strategies developed during this stage were too generalised, leaving some specific issues of sector constraints insufficiently addressed.

From 2001 poverty assessments have found that poverty matters could be viewed as multidimensional rather than just a lack of material resources problems. This view encouraged several sectors to carry out their own surveys to understand the micro level dynamics of their development needs. Concepts such as vulnerability, social, human and cultural development, governance and justice, absolute and relative poverty, community development and food security became popularly integrated in national research and development frameworks. As a result a comprehensive government Programme for Poverty Alleviation (PARPA I) was approved in 2001 and replaced by a new one (PARPA II) in 2006. These programmes 'lay out the country's strategy for attaining the Millennium Development Goals' (*African Economic Outlook*, 2007). Both programmes are similar in that they 'share same priorities in the areas of human capital development through education and health, improved governance, development of basic infrastructures and agriculture, rural development, and better macroeconomic and financial management' (Government of Mozambique, 2005). However, the PARPA II differs from the PARPA I in that it gives more attention to district-based development, 'creation of an environment favourable to growth of the nation's

productive sector, improvement of the financial system, measures to help small- and medium-size companies to flourish in the formal sector, and the development of both the internal revenue collection system and the methods of allocating budgeted funds' (Government of Mozambique, 2006).

The impact of PARPA has been assessed by the Statistics National Institute (Instituto Nacional de Estatística – INE). One of the evaluations carried out by this institute revealed that the incidence of poverty dropped from 69% in 1996 to 54% in 2002, as a result of PARPA's implementation. However, a major concern is that the assessments made by INE do not provide specific figures on fisheries growth and development. The subsequent sections consider the efforts that the fisheries sector has developed to mainstream the small-scale fisheries development agenda into a general framework of poverty alleviation strategy.

Policy considerations for poor fisheries communities

The Fisheries Master Plan (FMP) was drawn up in 1996. This appoints the provision of fiscal incentives for private initiatives (e.g. lower customs fees and credits) to small-scale fisheries; marketing infrastructure for post harvest activities; reallocation of industrial vessels on new fishing resources; the rehabilitation of the semi-industrial fleet; and the promotion of aquaculture as the main priorities. Additionally, fisheries authorities have encouraged investments on mechanised fishery for offshore pelagic species targeting tilapia and the lake sardine using mid-water trawling, and the promotion of small-scale mechanised fisheries for offshore species targeting the high-value species (Ministry of Fisheries: 2004).

Without undermining the advances that the fisheries sector has registered under direction of this FMP, there are policy issues that need to be addressed for further reflection: Firstly, Mozambique's Government never had its own budget to implement the Fisheries Master Plan (FMP). Most of the resources for FMP implementation came from donors or from industrial fishing contributions. This is one of the reasons why the intention to reduce the participation of the joint ventures and foreign vessels on industrial shallow water shrimp fishing, has been failing. Secondly, the FMP was approved before the adoption of the PARPAs I and II, so there are strong evidences that some of the FMP positions did not match with the PARPA II rules. Thirdly, the FMP strongly appointed the promotion of semi-industrial ice-trawlers as the key reference to fulfil the overall objectives of the small-scale fisheries development. The original idea was that through the free-market system artisanal fishers would gradually evolve to more semi-industrial fishing by acquiring advanced technology for fishing or processing fish at landing sites. The major failure here was that specific elements of such a development process,

especially those elements which could directly link semi-industrial fishing to artisanal fishing and then to the national vision of poverty alleviation, were not consistently addressed. Artisanal and large-scale fishing continued to compete with each other, at times resulting in conflicts.

During this period several projects of artisanal fishing development were implemented. However, there was no clear understanding of how poverty and vulnerability issues were like in the fisheries context. The Artisanal Fisheries Development Project (PPABAS) implemented in the Sofala Bank area (Mozambique) by the National Institute of Small-Scale Fisheries Development (IDPPE), and financed by the International Fund for Agricultural Development (IFAD), was the first intervention in the country which experienced the functionality of integrated programmes of poverty alleviation in artisanal fisheries. Covering three provinces, it was due to the success of this project that the government decided to review its vision on artisanal fisheries development by approving the New Fisheries Master Plan (NFMP) and the first Artisanal Fisheries Development Strategy (AFDS), both in 2009.

The NFMP and the AFDS were approved by the government of Mozambique to be implemented from 2010. Therefore no assessment can be done on their feasibility as they have not yet been implemented. However, it is important to emphasise that these are the first fisheries policy instruments which demonstrated with more precision the political will for a more pro-poor fisheries policy in Mozambique. One of the major innovations brought by this policy is the fact that the government indirectly recognised the need to change the concept of Small-Scale Fisheries (SSF) which has been adopted in Mozambique for many years. Artisanal fishing is now recognised as a separated system which needs its own development goals. In its perspective, artisanal fishers are composed by two main social segments: the artisanal-commercial (who fish for selling and use improved fishing technology) and artisanal-subsistence fishers (who fish for consumption or use poor technology for fishing). According to the AFDS, rights of access to financial, social and natural resources and development actions need to be differentiated according to this distinction.

Despite these advances in fisheries policy within Mozambique, there are still a number of challenges which need further consideration. One challenge is the definition of who is a poor fisher and who isn't, or who are the poor fishing communities and who aren't. Another challenge is the need to review the research frameworks that have been used to date, making them more adequate to the new vision of fisheries development. Quantitative research approaches of poverty analysis have demonstrated to be useful. However, they need to be strongly combined with qualitative tools to ensure that all fishers (poor, poorest and rich)

have *space* to express their authentic wills. Issues such as human rights, justice, freedom/democracy, health/education and others need to be regarded as an integral part of the research and development requirements in fisheries.

Conclusion and Policy Considerations

This study presents a summary on fisheries policy development; its strengths and constraints in Mozambique and South Africa. Mozambique and South Africa both face similar challenges on fisheries development policy, although their histories indicated some evidenced differences. In both countries, fisheries sectors are shaped by dualistic structures characterised by an open competition (and conflict) between a relatively modernised sub-sector (large-scale fishing) and a backward sub-sector (small-scale fishing). These can alternatively be considered as industrial versus artisanal/subsistence fishing, formal versus informal or modern versus traditional fishing.

As the role of both small-scale and large-scale fisheries has been recognised in both countries, Mozambique and South Africa's governments have faced significant challenges in establishing a policy which can equally sustain the interest of both large- and small-scale fishers. Moreover, attempts to promote distributional fisheries policies in both cases have faced strong opposition from the large fishing industries, which use their political influences to sustain their interests.

Comparisons between the two countries also indicate that Mozambique's policy development for poverty alleviation and vulnerability reduction appeared to be clearer than South Africa's reform process, which has primarily focused on race and gender in industry transformation. The New Fisheries Master Plan (NFMP) adopted by the Mozambique government has formally supported the need to adopt a specific strategy for Artisanal Fisheries Development, to ensure that macro and micro factors of poverty, vulnerability and inequality dynamics among poor fishing communities are properly addressed. The conceptual distinction on artisanal-commercial and artisanal-subistence fishing brought by this policy represents a formal recognition of the policy makers about the complexities and heterogeneities of the artisanal fishing, and the need to mainstream the vulnerable fishers into a development system at all levels.

In South Africa the MLRA considered two opposing views in reforming the fishing industry; on the one hand the collective, socialist agenda of the RDP, and on the other hand the individualistic, competitive and neo-liberalist agenda of the GEAR macro-economic strategy. The latter approach was mainstreamed into the fisheries allocation policy under the MLRA. The application of the Béné's

poverty alleviation framework to the fisheries policy in both countries was useful. However, it must be recognised that reality is decidedly more complex, so this framework cannot fully explain all relevant micro and macro factors of poverty and vulnerability dynamics in this sector. Applying the Béné's framework to Mozambique we found that the government is aware that poverty alleviation projects must be flexible according to the real needs of the vulnerable and poor groups. Therefore the government suggests that where artisanal fishers appeared to be more commercial-oriented, poverty reduction could be an appropriate function to help them accumulate capital, generate wealth and increase their participation on economic growth. Where artisanal fishers are mostly subsistence, poverty prevention can prevent them from falling into deeper poverty through safety mechanisms and other welfare functions which might be defined according to the context in case. The challenge, however, is how the other competitor subsectors such as large-scale fisheries, tourism and other industries sharing the coastal areas can be functionally integrated in this framework.

Applying Béné's poverty alleviation framework to the allocation policy in South Africa, it was found that in this country there was some consideration of poverty reduction through the promotion of small, medium and micro enterprises and by allocating rights to them as new entrants. But consideration of the complexities facing heterogeneous and unequal coastal communities, the importance of marine livelihoods to poor people, and a clear approach to reduce vulnerability was clearly missing. Conservation pressure groups and scientists were opposed to mass redistribution. The established industry was opposed to open access for inshore resources where the lucrative WCRL are found. These interest groups contributed to sidelining the possibility of an open access allocation to coastal communities, and this meant the new system failed to fulfil a poverty prevention function. Although the action space constrained vulnerable groups and fishers from accessing fishing rights and forced them into the informal action space, they were able to reorganise and place sufficient pressure on government to reassess rights allocation to coastal communities. The community representatives from coastal communities, government and researchers are now co-operating in the formal action space to draft a new small-scale fisheries policy. The future of small-scale fishing in South Africa looks promising but there are key concerns that should be addressed to incorporate vulnerable groups and fishers into the mainstream of rights allocation. If the objective of a new small-scale fisheries policy is to alleviate coastal poverty, to impact positively on the livelihood of the poor and to reduce vulnerability, the challenge for government and civil society is to ensure a suitable, flexible and adaptable allocation system that could apply to all coastal communities. The other concern is to define small-scale fishers more

broadly than subsistence fishers and allow them to sell their harvest on local or international markets. Finally, state assistance is necessary for the development of self-governance structures to ensure the sustainability of both the resource and fishery based livelihoods.

Because we agree that in South Africa the main challenge is the problem of allocation rights, there is a need to hold on to a more consistent poverty alleviation strategy. In Mozambique the new fisheries policy seems to be more pro-poor but as is often the case, most of the policy guidelines are not fully implemented due to a lack of financial and human resources. As any policy tool, the NFMP and the AFDS needs its own financial and human resources for their implementation.

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Forest Resource Use in southern Africa

Cori Ham and Paxie W. Chirwa

Introduction

Southern Africa is endowed with a rich variety of forest and woodland ranging from tropical rainforests in Angola to dry mopane woodland areas in Botswana. Forest and woodlands cover approximately 222 million hectare or 32.5% of the total land area in southern Africa with considerable variation in forest cover between countries. Lesotho, Namibia and South Africa are the least forested countries with less than 30% forest cover, while Angola is the most densely covered country with 56% forest cover (Saundry, 2007). These forest resources play a major role in the livelihoods of many communities as sources of energy, food products and medicinal plants as well as in the protection of catchments and maintenance of water quality (Zaikowski, 2007). While the socio-economic value of these forests and woodlands is enormous in terms of enhanced livelihood security and increased income, the forest area is declining largely as a result of increased firewood collection, clearing of forests for agriculture, and illegal and poorly regulated timber extraction (Zaikowski, 2008). Deforestation in southern Africa is estimated at 2.25 million hectares annually, mainly due to the consumption of nearly 90 million cubic meters of firewood per annum (Mubaiwa, 2004).

Forests not only contribute to livelihood security but also to economic development. Forestry accounts on average for 6% of Gross Domestic product (GDP) in Africa (Zaikowski, 2007). Despite the substantial contribution of the African forest industry to the economies of many countries in Africa and especially southern Africa (Favada, 2009), its share in the global wood products trade is extremely low and geared towards low value added items. For example, industrial roundwood exports from Africa accounted for only 8.4% of global exports of roundwood, and pulp and paper from Africa accounted for only 0.6% of the global pulp and paper export value in 2006. Africa's total wood products export increased from US\$ 1.6 billion in 1980 to US\$ 4 billion in 2006 while its percentage share of the overall global export market declined (FAO, 2009).

Forests and the forest industry can potentially play a much greater role in the socio-economic development of Africa. Realising this potential depends on the creation of a favourable policy and institutional environment. Currently, problems such as poor inter-sectoral linkages (between for instance forestry, mining and agriculture), inconsistencies in laws governing investment and the environment, poor governance, land tenure uncertainty and declining capacity of public forestry agencies prevent forestry from playing a larger role in social and economic development in southern Africa (FAO, 2009). This chapter will investigate the role of forest resources in socio-economic development in southern Africa. It will consider the role of forests in rural livelihoods, commercial forestry operations in the region and the impact of forestry on socio-economic development. Current forest policies in the region and options for increasing the socio-economic benefits of forests to the inhabitants of the region will also be discussed.

The Role of Forests in Rural Livelihoods

The majority of forests are located in rural and remote areas which are often underdeveloped in terms of infrastructure. These areas have limited job and livelihood opportunities and represent some of the poorest areas in southern Africa (Shackleton, 2004). Within these areas, forests play an important role in supplying direct use and income generation benefits. Direct use benefits of forest goods and services include the supply of basic needs, saving of cash resources and buffering or safety-nets during times of misfortune. By using forest products collected 'for free' from the forest, rural households can allocate scarce cash resources to other needs such as education of children, investment in agricultural tools and capital for income generation activities, etc. Such cost savings would best be reflected by replacement values of the goods that the non-timber forest products (NTFPs) substitute, rather than direct-use value based on farm-gate prices (Shackleton, 2004). The magnitude of this saving is greater to poor households than wealthier households, simply by virtue of the reduced total income source and size of poor households. This cash saving has benefits to governments in the region as they would have had to incur some of the costs if it was necessary to supply these products and services in rural areas (DWAF, 2005).

Fuelwood use is one example of such a direct benefit from forests. In eastern, western and southern Africa it is estimated that more than 90% of rural households rely on fuelwood for their energy needs. In South Africa it is estimated that approximately 13 million cubic meters of fuelwood is harvested annually from woodlands, indigenous forests and plantation off-cuts (DWAF, 2005).

Consumptions of fuelwood in areas of the Eastern Cape in South Africa were estimated at nearly four tonnes per household per annum (Ham, 2000). Two of the most important forest based income generating activities is the supply of fuelwood to rural households and the collection of timber and NTFPs from forests. The commercial role of fuelwood can be significant when community members supplement their incomes by selling fuelwood (Vedeld. *et al.* 2004). The trade in charcoal is a major source of income for many households in countries such as Malawi, Zambia, Zimbabwe and Mozambique. For example, in 1998 approximately 60 000 people were directly employed in the Zambian charcoal industry while generating about US\$ 30 million (Zaikowski, 2007). However, fuelwood collection and charcoal making is one of the main causes of deforestation. It has been estimated that 47% of deforestation in Malawi can be attributed to fuelwood harvesting (Mubaiwa, 2004).

Timber for construction is also a major forest product. Studies in the Eastern Cape Province of South Africa have shown that communities buy up to 15 000 poles per annum per woodlot from government managed woodlots for building material (Ham and Theron, 2001). In the absence of poles from woodlots, households rely on natural forests for access to building poles. This could impact significantly on indigenous forests when preference is given to poles from certain age classes of preferred species (Lewis *et al.* 2005).

Medicinal plants from forests is another very important NTFP, the trade of which provides a source of income for 400 000 to 500 000 traditional healers who service the 50 to 100 million traditional remedy consumers in southern Africa. The market value of more than a thousand species of plants actively traded in the region is estimated at between US\$ 75 million and US\$ 150 million per annum (Mander and Le Breton, 2005). In 2003 the annual export trade in medicinal plants from South Africa was estimated at about US\$ 60 million while annual exports from Zambia were valued at US\$ 4.4 million (Zaikowski, 2007). While forests, therefore, help to fulfil the basic needs of forest dependent households and serve as important sources of income for the rural poor, they also provide the foundation for forestry industries that contribute significantly to the economies of most of the southern African countries. The subsequent section highlights the role of commercial forestry in southern Africa.

Commercial Forestry in southern Africa

Forested areas in southern African countries vary significantly, e.g. from 59 million hectares in Angola to 8 000 hectares in Lesotho. The contribution of the different

national forestry industries to GDP also varies considerably among countries. The forestry sector contributes more than 3% of GDP in Mozambique, Lesotho, Swaziland, Zimbabwe and Zambia, but has a negligible contribution to the GDP of Namibia (Table 1). South Africa has one of the smallest percentages of forested areas but by far the largest forestry industry in the region (FAO, 2009).

Table 3.1: Area of Forest, Size of Forestry Industry and Contribution to GDP for Countries in southern Africa in 2006 (FAO, 2009).

Country	Land area (1 000 ha)	Forest area (1 000 ha)	Forest as percentage of land area (%)	Gross value added (US\$ million)	Percentage contribution to GDP (%)
Angola	124 670	59 104	47.4	262	0.6
Botswana	56 673	11 943	21.1	30	0.4
Lesotho	3 035	8	0.3	67	5.0
Malawi	9 408	3 402	36.2	50	2.6
Mozambique	78 638	19 262	24.6	224	3.1
Namibia	82 329	7 661	9.3	6	0.1
South Africa	121 447	9 203	7.6	3 545	1.6
Swaziland	1 720	541	31.5	80	5.2
Zambia	74 339	42 452	57.1	629	5.9
Zimbabwe	38 685	17 540	45.3	74	5.3
Total	590 944	171 116	29.0	4 967	

Southern Africa is the second largest source of planted forests in Africa (after North Africa) with an estimated 2.1 million hectares (Favada, 2009). South Africa has the largest area of forest plantations in Southern Africa, representing approximately 1.3 million hectares in 2007 (FSA, 2008).

In 2006, Africa produced only 4% (69 million m³) of the world's industrial roundwood and 2% of the world's sawn timber (8.3 million m³), while exporting 6% of the industrial roundwood and 23% of the sawn timber. It produced 2% of the world's pulp for paper (3.9 million m³) and exported 36% of the volume of this pulp. Production of wood based panels and pulp and paperboard, each respectively, accounted for 1% of the global production rate in 2006. Africa, however, has the dubious honour of producing 46% of the world's fuelwood (FAO, 2009).

Although Africa's contribution to the global supply of timber products is relatively low, it is important to consider where the timber products are produced and

where they are used. China is by far the largest single importer of African timber products. In 2006 China imported 2.6 million cubic meters of forest products from Africa, worth US\$ 737 million. Africa accounted for approximately 3% of China's forest products imports in 2006. Mozambique (5.1% of African exports to China), Swaziland (7.6%) and South Africa (2%) ranked among the top ten exporters of forest products from Africa to China. Mozambique exported mainly unprocessed logs (fifth largest log exporter from Africa to China) and sawn timber (eighth largest sawn timber exporter from Africa to China). Swaziland exported a large amount of pulp, and South Africa exported paper and smaller volumes of pulp to China. South Africa and Swaziland exported 99% of all African pulp and paper exports to China in 2006 (Canby *et al.* 2008).

On a per country basis, these export figures vary considerably. South Africa, for instance, exported only 13% of its pulp to China in 2006, while Swaziland exported nearly all its produced pulp to China (Canby *et al.* 2008, FAO, 2009). Mozambique accounted for only 2% of Africa's total timber exports but between 85 and 88% of Mozambique's timber exports were destined for China in 2006 (Canby *et al.* 2008; Sun *et al.* 2008). Despite the fact that southern Africa is not as well endowed with tropical timber as for instance Central Africa, it produces more roundwood than the other sub-regions and plays an important role in intra-African timber trade. For example, in 2006 southern Africa produced approximately 29% of all the roundwood and a substantial percentage of all secondary processed wood products (SPWP) exported to other African countries. These data are skewed by the dominant role that the South African plantation forestry industry plays in the region. South African timber exports accounted for 32% of the total value of intra-African timber exports in 2007. South Africa supplied for instance nearly 50% of all the particle board traded in intra-Africa trade in 2007 (Favada, 2009). (For a detailed discussion on intra-African timber trade see Favada, 2009).

Considering that forestry in southern Africa plays an important economic role in the region, it can be asked how this industry impacts on the people of southern Africa. The following section will consider the impact of the regional forestry industry and identify a number of problem areas to socio-economic development.

Impact of Forestry on Socio-Economic Development in southern Africa

The southern African forestry sector impacts in various positive and negative ways on the socio-economic development of the region. Some of the positive impacts include livelihood support to the rural poor, the creation of jobs in commercial

forestry operations and business opportunities to rural entrepreneurs. Negative impacts are related to the export of unprocessed raw material, unsustainable forest management and a lack of defined ownership and tenure. An emerging issue that could influence the socio-economic development potential of forests in the region is that of the payment for ecosystem services.

Livelihood support to the rural poor

As mentioned in the section above, forests play a key role in supporting the livelihoods of the rural poor. Millions of households depend on non-timber forest products for subsistence and/or a cash income. It is estimated that forest resources generate on average about 20% of household income in poor rural areas of the developing world (Bishop *et al.* 2008). In Africa, wood is likely to remain an important energy source. The FAO (2009) projected a 34% increase in fuelwood use in Africa between 2000 and 2020. Although the share of fuelwood in the total energy supply is likely to decline, the absolute number of people dependent on wood energy is predicted to grow.

The subsistence use of forest products does not offer an avenue out of poverty for the rural poor, but without the continuing supply of fuelwood, construction poles, medicinal plants and forest foods, the existing hardship of poor, forest dependent communities will increase (DWAF, 2005). Chirwa *et al.* (2008) have found that in rural villages where residents have access to electricity, they still prefer using fuelwood for heating and for cooking food items that require long preparation times. In a survey among forestry dependent communities in the Eastern Cape Province of South Africa, respondents indicated that they make use of the local forests to collect firewood (head load bundles), poles for building and medicinal plants. Other uses included the collection of water from the forest, hunting, spiritual needs, timber for furniture, seedlings and larger scale collection of firewood (truck loads). Importantly, the respondents also indicated that they will either have to spend on average an additional US\$ 45 per month to buy products that they currently collect for free, or use alternative products such as cow dung and aloe leaves for heating, if these products are no longer available from the forests (Ham *et al.* 2008a).

Besides the direct livelihood support that forests offer to the rural poor, forests are a source of income. Although returns from small-scale trading in forest products are low and highly variable, income earned is important as it can be used to settle debts or make occasional payments such as school fees, purchasing of seed and agricultural implements and household improvements. Some of the attractive attributes of the trade in forest products is that it allows people to work at

home, work in parallel with other household chores, work with family members, earn and control cash independent of the household head, and make a contribution to the household (DWAF, 2005). The selling of jams, wines and fruit juices processed from indigenous forest fruits by groups of women in Zambia, Tanzania and Malawi have helped the participants, for instance to purchase cattle and fund additions to their homes (Ham *et al.* 2008b).

Another income generating example is that of the trade in *Sclerocarya birrea* (marula) fruits. Mander *et al.* (2002) calculated that the average annual income from the trade in marula fruits and products accounts for approximately 10% of average household incomes within southern Africa. More critical than the money earned from this trade is the timing of trade. The marula season correlates with the time of the year when children are going back to school. This additional income is often used to pay for school fees and clothes. It has been estimated that in 2002 marula beer traders in the Mpumalanga Province of South Africa earned on average US\$ 60 per season (usually from January to early March), with a few earning a net income of over US\$ 250 (Shackleton, 2002).

The livelihood support role of forests can, however, also be detrimental to the health of forests. In countries such as Malawi, the forest resources are under threat due to increasing population, declining to 28% of the total land area by 2000. In the central and southern regions of Malawi there is a substantial gap between the supply and demand for fuelwood from customary land and the deficit is met from forest reserves. It has become increasingly difficult for urban and peri-urban residents to obtain fuelwood and this results for instance in the decimation of the Ndirande Forest Plantation and natural *Brachystegia* forests outside Blantyre. The high population pressure also results in forests being cleared for agriculture, which further accelerates deforestation (Government of Malawi, 2002).

Job creation in commercial forestry

The creation of employment opportunities is probably one of the most significant contributions that forestry can make towards economic development in the region (Madula, 2004 in Lewis *et al.* 2005). Information on employment in southern African forestry operations is, however, scarce but the South African forestry industry can be used as an example of the effect of the industry on job creation and rural income generation.

It is estimated that the South African forestry industry employs 106 844 people, of which 67 469 people are formally employed and a further 39 375 are small growers and their helpers. These beneficiaries tend to be unskilled, in low-income areas, and with a low opportunity cost (i.e. alternative income opportunities

for the time spent in plantation activities) for their participation in the sector. Although there are no detailed statistics on the monetary value of the wages paid to people working on timber plantations, it is estimated that formally employed plantation workers earn in total approximately R2.6 billion per year (Godsmark, 2004 in Lewis *et al.* 2005).

In addition to the abovementioned workers employed by forestry operations, there are an estimated 63 181 people employed in secondary and tertiary processing activities (Chamberlain *et al.* 2005). There are for example approximately 900 furniture manufacturers in South Africa. A large percentage of these manufacturers are small-scale producers that produce in total about 40% of the South African furniture output and employ from five to 30 people (Howard, 2009). An analysis by Hassan (2003) in Shackleton (2004) indicated a downstream employment multiplier effect of between two and three times, resulting from processing and value addition of plantation timber.

Most of the South African forestry companies and their contractors comply with minimum wage levels set by government as well as basic conditions of employment and labour legislation. Forestry companies and contractors also provide accommodation in rural areas, most of which are serviced with water, sanitation and electricity. Other benefits include the provision of clinics and schools. It has been estimated that more than 14 000 children are schooled in forestry sponsored schools. Approximately 65% of forest workers also receive some formal training in any given year, including adult literacy classes. Many forestry sub-contractors provide food rations to employees which reduces food insecurity within the rural household, but with a trade-off of lower cash wages (Shackleton, 2004).

The following three examples illustrate employment trends related to indigenous forest operations in the region. In Mozambique timber operations are mostly controlled by private timber concession holders who acquired rights from government to manage and harvest large forest areas. One such a concession holder, who manages a 24 000 hectare concession area, employs more than 180 workers of which more than 100 work in the forest and sawmill and 70 in a furniture factory. The company pays fair wages and is very involved in community development activities (Ham *et al.* 2009). There are currently 126 of these concessionaires active in Mozambique, covering an area of 5.2 million hectares. It is estimated that these concession operations employ approximately 200 000 people in Mozambique. When fuelwood and charcoal, village based sawmills, and other non-timber forest product producers are included, estimated employment increase to 600 000 people (Nhancale, 2009).

Copper mines in the Copperbelt area of Zambia require large quantities of timber for mining supports and construction. A study conducted by Howard *et*

al. (2001) estimated that eight timber suppliers who provided indigenous timber to one of the mines employed a total of 745 people, with the largest supplier employing 200 and the smallest 30 people. Approximately 25% of these people were employed as “casual” labour, meaning that they were only employed when required and according to the demand for timber. Most of the permanently employed workers were nearly 100% dependent on the contractors for an income. It was estimated that the 745 people directly employed in the timber supply chain related to approximately 4 200 people, including dependants.

The charcoal industry in Malawi is not recognised as a legal industry but is one of the largest in the country. If the product was exported, the annual foreign exchange income to the country would be between that of tea and sugar (respectively the second and third largest export industries after tobacco). Although the charcoal market is complex and it is difficult to find accurate information on employment due to the secrecy required in its unlicensed trade activities, it is estimated that about 92 800 people are regularly involved in this trade. This includes 12 700 bicycle transporters, 35 500 traders, 46 500 producers and 300 individuals who perform regular pick-up and truck transport (Kambewa *et al.* 2007).

Business development

Forestry not only contributes to income generation through direct employment. It is estimated that forests contribute 22% of total income for those living in or close to forests (Mayers, 2006). Much of this originates from small-scale enterprises and informal business arrangements. In general, small-scale enterprises help to reduce the accumulation of wealth and power in the hands of a few large companies, spread wealth locally, empower local creativity and act to preserve cultural identity and practices. When small-scale timber enterprises are grouped together in clusters or associations, they can play a further crucial role in articulating the needs of the poor and influencing policy. These entrepreneurs generally have a better understanding of local political contexts, more links with local civil society and a greater commitment to operating in a specific area than large-scale enterprises. Family-owned companies in particular often exhibit strong ethical and philanthropic approaches (Mayers, 2006).

Income from the trade in forest goods constitutes a significant business opportunity for rural entrepreneurs. Although forest based business ventures generally deliver low returns on capital and labour investment, they are attractive as business ventures because they provide low barriers to entry and demand high labour intensity (DWAF, 2005). Rural, forest based business ventures, however, often remain small and marginally viable due to factors such as poor infrastructure

and poor access to finance and other support (Zaikowski, 2008). In this regard, joint ventures (so-called outgrower schemes) between larger forestry companies and small-scale timber growers could prove to be more successful in creating socio-economic development.

In South Africa, timber outgrower schemes enable participating households to increase their income substantially. There are approximately 24 000 small growers in formal schemes, and between 5 000 and 10 000 independent small growers in South Africa. The informal contractors or labourers – often family members – employed by small growers are not included in this direct employment figure but it is estimated that one job is created over and above the small grower for every eight hectare planted. Given an estimated two hectare per small grower, this would imply that an additional 7 875 employment opportunities are created by small growers (Chamberlain *et al.* 2005). Gross annual revenue from the sale of timber by small-scale growers in South Africa is estimated at approximately US\$ 14 million per annum (Howard *et al.* 2005). While these small-scale timber enterprises in South Africa are overshadowed by large corporate players, they are often the dominant form of forestry ownership in other countries. One estimate puts the value added by small-scale timber enterprises worldwide at more than US\$ 130 billion per year, which could be compared with the US\$ 140 billion per year value of imports of wood products worldwide, mostly from large scale enterprises (Mayers, 2006).

In the case of small-scale forestry, the income earned from timber sales and bonuses is generally paid out as a lump-sum cash value arising from the clear felling of the plantation at maturity. Such a form of payment is beneficial to growers as it provides considerable finances that could pay for school fees, a vehicle, house building, furniture, and provides the cash injection necessary to start a small business such as a tavern store or chicken farming operation. These kinds of expenses are best paid in either single payments or sizeable instalments and therefore, in an absence of structured saving schemes, small-scale forestry assists individuals by contributing to household savings (Howard *et al.* 2005).

One of the more significant economic impacts of small-scale forestry on the broader community is that revenue is circulated within the community when growers employ the labour of both family and community members to work in their plantations. Small-scale growing has also created entrepreneurial opportunities for others, which has contributed to growth and diversification of economic opportunities of the broader community. In many cases growers do not have their own means of transporting timber from their land to the mill, creating an opportunity for the development of local transport contracting businesses

where community members who have vehicles sell their services to these growers (Howard *et al.* 2005).

Outgrower schemes are not only contributing directly to the economies of rural communities but also empower some of the poorest of the poor. The effect of poverty on women and female-headed households is compounded by many cultural norms, for example lack of rights and independence (Lewis *et al.* 2003). Timber outgrower schemes have, however, provided women with an economic alternative. It is reported that within the Sappi Project Grow outgrower scheme, 80% of the growers are women (Van Loggerenberg, 2004). While outgrower schemes tend to favour plantation systems over natural forests (Dunning, 2007), most of the small-scale forestry businesses in southern Africa are based on the utilisation of indigenous forests. For instance, in Mozambique there are approximately 6 850 formal and 189 000 informal small-scale forestry enterprises that trade in NTFPs such as honey, handicrafts, charcoal and firewood. Informal, small-scale businesses produce an estimated 8 million bags of charcoal with a value of US\$ 32–44 million per annum in Mozambique. There are an estimated 20 000 traditional beekeepers in Mozambique who produce more than 350 tonnes of honey per annum (Nhancale *et al.* 2009).

Box 3.1: Benefits of outgrower schemes

'Vusi Gelange is a 33 year old male from Mbazwane in KwaZulu Natal, South Africa. He owns five woodlots with a total area of 20 hectare and employs about 10 people on a part-time basis. He sells timber to Sappi Forests and to the local municipality. He has earned up to R40 000 from the harvesting of his forests. He has been able to build a house, educate his children and buy livestock from the proceeds of his forests. In his own words "I see a brighter future with forestry business".'

(Ham *et al.* 2008a)

Export of unprocessed material

Mozambique is the largest exporter of unprocessed indigenous roundwood in southern Africa (Favada, 2009) and serves as a case study of how such exports can influence the people involved in a natural forest based sector. In a country such as Mozambique, dependency on one major export partner has had a major impact on socio-economic development, based on forestry.

A basic trend since the 1960s in the trade of tropical timber was an increase in the trade of processed timber products and a drop in the trade in unprocessed roundwood. This trend has stimulated growth and employment in the processing industries of tropical timber exporting countries (Adnan, 1996). Unfortunately,

recent growth in Africa's exports to China matched the overall shift in China's forest products imports to products lower on the value chain. This is seen as a preference for the importing of pulp versus paper and roundwood versus veneer into China (Canby *et al.* 2008).

Since China began importing timber from Mozambique in 1996, an average of 96% of the imports has been roundwood (Canby *et al.* 2008). Between 1995 and 2005, Mozambique exported a total of US\$ 136 million of precious timber to the international market, of which 60% was unprocessed in 2005 (Sun *et al.* 2008). While there is significant potential to develop Mozambique's forest resources in such a way that the rural poor can benefit, these people have largely been excluded from the commercial value chains related to the export of unprocessed timber (Nhancale *et al.* 2009).

The timber market is dominated by Asian buyers who set prices, which in turn influence the downstream benefits from the sale of timber (Nhancale *et al.* 2009). Within these timber value chains, foreign companies (particularly Chinese companies) often dominate production, transport, processing and export activities. The local Chinese companies lack corporate social responsibility, have done little to promote local sustainable forest management, and have even participated in corruption (Sun *et al.* 2008). Mozambican legislation demands that a certain percentage of logs must be processed but often logs are only partly processed to satisfy these requirements and many wood processing mills are simply playing the role of export agents (Nhancale *et al.* 2009). In addition, while there are substantial employment opportunities available, jobs for local people are often menial and employee training is rudimentary. Low wages and noncompliance with the national social security scheme do not improve the living conditions of workers. Often there is a disregard for health and safety regulations and working conditions in processing facilities are unsafe and harsh. The vast majority of sawmill workers are not formally contracted and hired on a daily basis, depending on the amount of work that is available (Sun *et al.* 2008).

Another problem area in the export of roundwood is that of record keeping. Timber volume figures for actual production and licensed production are inconsistent among different sources and even for similar sources (Sun *et al.* 2008). This is not unique to Mozambique, as generally the availability of data on the flow of timber in and out of Africa is notoriously deficient. Official trade statistics often misclassify products and have errors in volume estimates due to missing data and mixing of different measuring units. There are errors in the value of products due to complex arrangements in invoices and a lack of data on cross-border trade (Favada, 2009).

Hence, from this case study, Mozambique is an example of a country with an abundance of forest resources but where the use of these resources has not yet been translated into a profitable and sustainable forestry sector. Timber is exported by outside agents without benefit to the local communities and government. In this situation the long-term sustainability of the forestry sector can be questioned.

Unsustainable forest management

The deforestation rate in Africa is higher than the global average with about 4 million hectares lost annually between 2000 and 2005. The forest loss is expected to continue due to increased demand for food and energy and an increase in investments in infrastructure that opens access to forested areas. Poorly developed and implemented policies and institutional processes also undermine the adoption of sustainable forest management practices (Zaikowski, 2008 and FAO, 2009).

Efforts to reduce deforestation rates often focused on the curbing of illegal logging. The assumption is, however, that 'illegal' is unsustainable while 'legal' forestry practices are sustainable. Legal forestry laws are not always based on criteria for sound sustainable forest management, and even if diligently followed might not lead to sustainable forestry (Larson and Ribot, 2007). Often public policies result in inappropriate economic incentives that create inefficiencies in timber harvesting and short-term extraction for immediate gain (UN, 1999).

These policies can cause confusion among local user-rights holders about their rights to the resource. In situations where there is uncertainty about rights and responsibilities and authorities have little means to enforce rights, local people can ignore long-respected rules and regard resources as a free-for-all (DWAf, 2005). While over-exploitation is often blamed on these local users, it is usually due to the actions of wealthy outside traders who abuse the lack of clarity in user-rights to exploit the forest resources (Larson and Ribot, 2007). Implementation of policies and laws has been hampered by a lack of political will, lack of co-operation from timber industries, and poor institutional capacity (Sun *et al.* 2008). Throughout Africa, forestry departments are experiencing acute shortages of staff and equipment (Zaikowski, 2007, 2008). To illustrate this point, Howard *et al.* (2001) reported on a forestry officer in Zambia who was single-handedly responsible for extension services in a 1 700 km² district with a population of 161 012 people. This extension officer was office bound due to lack of transport to enable him to effectively carry out his duties.

Concessions is seen in southern Africa as an appropriate tool for the transferring of forest management to the private sector. Unfortunately, the processes for

awarding contracts, monitoring activities and enforcing compliance, have proved to be complicated in environments marked by corruption and opaque public sector decision making (Hermosilla and Simula, 2007). For instance, only 63 of the 126 concessionaires currently active in Mozambique have an appropriate management plan, while the rest are either operating informally or still undergoing the process of developing such plans (Nhancale *et al.* 2009).

Allocating clearly defined user rights to forests could be a way of solving some of the issues related to unsustainable forest management. In situations where local communities are provided with secure access and user rights to forest resources, they can be asked to assist with forest management, conservation and rehabilitation (Bishop *et al.* 2008). Such arrangements could then prevent outsiders from exploiting forests without any benefits to local communities and the rural poor.

Ownership and tenure

Two of the keystones for the development of a successful enterprise are ownership and security of tenure. Local communities in southern Africa are often excluded from forest ownership and have access to only the most degraded and least productive land that cannot provide an adequate return on their investment in time and money. In many countries rules and regulations are crafted to the needs of large forestry enterprises, leaving small-scale enterprises and community institutions at a disadvantage (FAO, 2009). Governments are, however, increasingly recognising traditional land tenure and usufruct rights to forest resources by forest dependent communities. Building the capacity of these communities to become partners in sustainable forest management is receiving increasing attention and is seen as critical to the success of participatory forest management ventures. It is realised that the complex relationships within communities require a better understanding of institutional and governance challenges (Hermosilla and Simula, 2007).

Considering the complexity of community arrangements, small-scale, privately owned forest enterprises could have a better chance of success than community based projects. However, such small-scale forest enterprises often operate informally in an unfavourable business environment with high barriers to entry, because of ill-defined property rights (FAO, 2009). According to De Soto (2000), one of the reasons why businesses fail in developing countries is the lack of clearly defined property rights. For example, without documented ownership an entrepreneur cannot use his/her assets as security for a bank loan. Such an entrepreneur is forced to function in a shadow economy with very high transaction costs, often aggravated by payments for bribery and extortion.

Secure ownership and tenure is, however, not an instant panacea. Post-restitution land use in South Africa has consistently failed commercially due to a lack of material benefits accruing to successful land claimants. Agreements such as those between Mondi Forests and communities with claims against Mondi's land, could serve as an example in defining the benefits for new forest land holders. According to one agreement, ownership of forest land will be transferred to communities and through a lease agreement, they will supply timber to Mondi in exchange for a guaranteed income from the sale of the timber (Business Day, 2008). Such agreements between new landholders and large companies could assist in securing land tenure and also promote sustainable forest management.

Ecosystem services

Most forestry activities are based on some form of direct use of the resource where the forest is disturbed or destroyed to extract forest products (Bishop *et al.* 2008). Forests, however, also provide a wide array of environmental services and resources which can be successfully commercialised. The market for environmental services from forests is growing rapidly around the world and is often facilitated by national and regional policy initiatives and agreements. Certain segments of society, who are able and willing to pay for these services, are creating opportunities for income generation without destruction of forest resources (Zaikowski, 2007). Environmental services are often of considerable more value than the production of timber and non-timber forest products. The role of forests in global efforts to mitigate climate change effects is well accepted but the role of other services such as watershed protection (so-called 'green water') will gain importance in future. Various innovative mechanisms are under discussion to encourage the preservation of forest resources and to compensate the producers of services for the sustainable management of forests (Hermosilla and Simula, 2007).

This growing demand for environmental services, especially in terms of carbon sequestration and biodiversity protection, provides an opportunity for Africa (FAO, 2009). However, despite the fact that the market for environmental services such as the carbon sequestration value of forests (defined under the Clean Development Mechanism (CDM) of the Kyoto Protocol) has evolved quickly, Africa has not seized the opportunities available through such mechanisms (Zaikowski, 2008). Africa as a whole contributed to only 3% of the global volume of carbon offsets that were traded in 2003 and 2004 and a negligible share in 2004 to 2005. Asia and Latin America contributed 43% and 35% respectively to the global trade in carbon offsets during 2003 to 2004 (Jindal, 2006).

In a 2006 review of carbon projects in Africa, Jindal (2006) identified 19 projects throughout the continent. Only three of these projects were located in southern Africa. Two of the projects (The International Small Group and Tree Planting Program [TIST] established in 1999 and Commercial Plantation projects established in 1997) were in Tanzania and funded by the World Bank BioCarbon Fund and Tree Farms AS of Norway, respectively. The third project (Nhambita Community Carbon Project established in 2003) is in Mozambique and is funded by the European Union. The Nhambita Community Carbon Project focuses on the planting of timber and fruit species including *Acacia* species, *Sclerocarya birrea* (marula) and *Mangifera indica* (mango); and promotes indigenous woodlots on degraded land, agroforestry systems on homesteads, boundary planting as well as the conversion from slash and burn agriculture to alternative income streams (Plan Vivo, 2009).

In most of the carbon projects, local communities act as the service providers. They are supported by NGOs and local government departments who assist with community organisation, capacity building, monitoring and supervision as well as liaising with investors. Most projects are covered under bilateral agreements and managed by host country national governments or other national agencies. Other implementation agencies include private companies and research institutions or universities (Jindal, 2006).

Despite its potential, carbon trading might not be a quick fix for southern African forestry development. While forestry and agricultural projects can sell carbon through the CDM, few transactions have been approved to date and there is little focus on biodiversity benefits under such schemes, as they tend to involve mono-species forest plantations. Most activities linking carbon to biodiversity have taken place within the growing voluntary market where corporate companies and individuals seek to offset their carbon emissions to meet their own reduction targets. Carbon from trees is not sequestered indefinitely and is subject to greater risks and uncertainties, compared to renewable energy initiatives. Therefore carbon credits related to forestry projects are traded at lower values than prevailing market prices (Bishop *et al.* 2008). Other environmental services such as ecotourism might prove to be more sustainable in the long run.

The increasing demand for nature based recreation has stimulated the development of game reserves in southern Africa. Many nature based tourism activities revolve around forests and woodlands, providing a means by which local communities can use forests and wildlife without extracting the resources or degrading the environment. The capacity of ecotourism to generate income and employment for surrounding communities depends on how well these ventures are managed. In a case study of community ecotourism lodges in Mozambique, Ham

et al. (2009) have found that complex arrangements between communities and NGOs involved in the establishment of such ventures could lead to failure. Unless such ventures are guided by strong entrepreneurs who follow sound business principles, they will have limited success in rural development. The abovementioned positive and negative impacts that forestry might have on socio-economic development in southern Africa are affected by the forest policies of countries in the region. The following section will highlight some of these policy processes.

Current Policy Framework

Most of the southern African countries have developed legislation relating to the management of forest resources. Much of this legislation in southern African countries has been reviewed and improved over the past twenty years (see Kohler, 2001, Alden Wily and Mbaya, 2001). The underlying principles of these policies are to achieve efficient, profitable, and sustainable management and utilisation of forest resources by all. This is further consolidated in the Southern African Development Community (SADC) Protocol on Forestry which has the following the objectives:

- Promote the development, conservation, sustainable management and utilisation of all types of forests and trees.
- Promote trade in forest products throughout the region in order to alleviate poverty and generate economic opportunities for the peoples of the region.
- Achieve effective protection of the environment and safeguard the interests of both the present and future generations (Saundry, 2007).

This protocol was signed by all member countries and ratified by three in 2004 (Saundry, 2007). As a policy framework, the Protocol on Forests is expected to provide an effective approach to the management of the region's forests (Mubaiwa, 2004). The mechanisms for achieving this protocol, which calls for co-operation among State Parties in the SADC region, include the following:

- Assisting and supporting each other to address issues of common concern including deforestation, genetic erosion, climate change, forest fires, pests, diseases, invasive alien species, and law enforcement in a manner that makes the best use of the technical, financial and other resources in the region.
- Promoting the sustainable management of shared forests, taking into account other protocols.

- Facilitating the gathering and monitoring of information and the sharing and dissemination of information, expertise and technology concerning forests, forestry and forest industries, throughout the region.
- Developing human resources in the forest sector through establishing regional facilities for building technical capacity and other means.
- Promoting trade and investment based on the sustainable management and utilisation of forests, including developing and agreeing on common standards for sustainable forest management and forest products.
- Harmonising approaches to sustainable forest management, forest policy, legislation and enforcement, and issues of international concern.
- Promoting respect for the rights of communities and facilitating their participation in forest policy development, planning, and management, with particular attention to the need to protect traditional forest-related knowledge and to develop adequate mechanisms to ensure the equitable sharing of benefits derived from forest resources and traditional forest-related knowledge without prejudice to property rights.
- Promoting the intangible, cultural and spiritual value of forests.
- Establishing equitable and efficient ways of facilitating public access to forests especially by neighbouring communities.
- Establishing appropriate institutions and funding mechanisms to support the implementation of the protocol.
- Taking other appropriate measures to give effect to the protocol (SADC, 2002).

However, there are still outstanding problems in respective countries that need to be resolved before they can even start looking at regional co-operation. In a study conducted by France-Lanord *et al.* (2007) for FAO on the linkage of the National Forest Programmes and Poverty Reduction Strategies, they found that the single most critical issue facing the forestry sector in Zambia is the government's failure to establish a Forestry Commission called for in the Forests Act of 1999. Thus the institutional framework is based on 1973 legislation and it has no legal authority to implement either the National Forest Policy or the Zambia Forestry Action Plan. In addition, outdated laws and regulations prevent the expansion of joint forest management, a prime means to alleviate poverty in forest-dependent communities, while the incapacitated forestry administration is unable to halt the high rate of deforestation that continues to destroy the resources on which poor people rely.

On the other hand, in Zimbabwe, Mapedza (2007) concluded that the pre- and post-independence forestry management strategies seem to have systematically alienated forestry resources from the local communities, despite promises used

to mobilise people during the liberation struggle. Likewise, the current unrest in Zimbabwe has resulted in a number of state owned forests, plantations and national parks being invaded. Legislation that underpins community involvement in forest management and the devolution of forest management to local communities has remained fundamentally unchanged from the colonial period (Matose, 2006 and Mapedza, 2007). There has been little democratisation of the legal framework, which has meant a perpetuation of colonial forestry strategies and institutions with minor adjustments. This jeopardises any possible foreign investment and/or involvement in the forest industry in Zimbabwe.

In the case of South Africa, the National Forestry Program indicated that '[t]here is concern that the existing pattern of ownership in the industrial forest sector may be incompatible with the achievement of an efficient and competitive industrial sector which fully contributes to national goals and provides new economic opportunities, particularly for the previously disadvantaged' (RSA, 1997). In addition uncertainty exists over the long-term ownership of forest lands in South Africa. Most of the state forest areas are subjected to land claims under the Restitution of Land Rights Act of 1994 and in the absence of a speedy resolution to these claims, rural communities ignore long-respected rules and regard the resource as a free-for-all (DWAF, 2005).

After independence in 1975, prolonged conflict reduced timber exploitation in Mozambique. After the peace agreement in 1992 a series of policy developments (including the Forestry and Wildlife Policy of 1997, the Forestry and Wildlife Law of 1999 and the Regulations to the Forest and Wildlife Law of 2002) provided Mozambique with a set of fairly progressive policies and legislation that paved the way for equitable forest resources use. These regulations dictate that land and forest resources belong to the state from whom it can be leased. Rights to exploit forest products can either be acquired on a long-term concessionary basis, as a short annual simple license or acquired through customary habitation of the land. Unfortunately a lack of transparency with which forest use rights are allocated, insecure tenure arrangements, and institutional failure to enforce forest management laws have reduced the effectiveness of Mozambican legislation (Sun *et al.* 2008).

While most of the policies in the region take cognizance of the need to provide improved access to the forest resource for NTFPs, this is not clearly articulated in their respective national action plans. One issue that is poorly addressed is that of the sustainable management of fuelwood. With more than 90% of rural households depending on fuelwood as energy source (Zaikowski, 2007), there is an obvious need to recognise value added forms of fuelwood commodities (e.g. charcoal, briquettes, etc.) and their sustainable production. Simultaneously the

need exists to create a supportive legal and economic framework for small-scale enterprises based on the provision of fuelwood to rural communities. Increasing efficiency and ensuring that the development of this sector does not accelerate deforestation, requires appropriate policy interventions. However, these activities are usually in different Government departments, making co-ordination challenging in most instances. Zaikowski (2007) highlights the importance of urban markets for wood products in many countries, with possibilities of opportunities for medium- and long-term investment.

The previous sections provide an indication of the role that forestry can play in socio-economic development. It is, however, also evident that there are many problems preventing the southern African forestry sector from reaching its full potential as a regional development force. The following section will discuss a number of interventions that could assist in making forestry an economic driving force for the future.

Forestry as an Economic Driving Force in the Future

The previous sections highlighted some of the problems that forestry in southern Africa faces. Problems such as low investment in the sector, increasing population pressure, weak public sector institutions responsible for forest management, deforestation, and declining forest quality are jeopardising the environmental services and community benefits of forests (Zaikowski, 2007). The following section will consider how changes in policies, facilitation of trade, promotion of afforestation, adoption of ecosystem services and stimulation of forest based enterprises could improve the benefits from forests in southern Africa.

Policies

Forest and woodland resources in southern Africa will continue to play a major role in the livelihoods of many communities in the region for a long time to come. The role played by forests and woodlands as sources of energy, food products and medicinal plants, as well as for the protection of catchments and water quality, is a major contribution to many national economies. Southern African governments will need to address a number of key concerns to ensure the sustainability of the regional forestry sector. These include: active engagement with private sector and civil society in forestry and woodland resource management; reviewing the legal and institutional capacities of the public sector institutions responsible for forestry resources; undertaking comprehensive inventory and valuation of forests

and woodlands; and the introduction of mechanisms that encourage sustainable utilisation of forest and woodland resources, including issuing concessions on standing volumes rather than harvested volumes (Zaikowski, 2007).

Specifically in SADC, the objectives enshrined in the SADC Forest Protocol, which are still relevant, will have to be implemented and resources made available to enforce them. The South African NFAP succinctly posits that '[w]e are rapidly approaching a stage where South Africa's forest sector can no longer be seen in isolation. It is becoming part and parcel of the forest sector of the Southern African Development Community' (RSA, 1997). The foundations of a regional approach, such as joint studies on research, education centres of excellence, and the development of SADC regional forest policy, have been laid and should be built upon. For example, on capacity building, a number of universities and colleges in the SADC offer training from certificate to degree level in forestry. Closer integration between these training institutions and government departments can help to overcome skill and staff shortages and help to align regional research programmes (RSA, 1997).

Trade

Growing intra-Africa trade in timber products has the potential to boost economic development in the region. There are, however, a number of constraints to this trade, including:

- A lack of knowledge on regional markets by traders in the region that is aggravated by the lack of a central co-ordinating organisation that can provide market information.
- Poor transport and communication links between African countries.
- Weak infrastructure to support trade among African countries with special emphasis on poor road and rail linkages.
- Bureaucracy in the systems and documents for the movement of goods across borders.
- Poor banking systems that constrain payment for goods and services.
- Difficulty in obtaining trade finance due to a poor record for re-payment of loans by players in the timber sector.
- Risks associated with exchange rate fluctuations.
- The existence of a large informal/illegal timber sector which supplies a major share of the regional market.
- Limited secondary processing capacity that often requires that raw material is exported to countries outside Africa and finished products imported to satisfy local demand.

- African suppliers with many notable exceptions have a reputation as being unreliable and not able to meet orders in quantity and time.
- African timber is not well known among consumers who often prefer imported timber such as Oak and Ash, to indigenous African timber.
- Competition from Asian countries who can import African roundwood, process secondary products, and export these products back into Africa at lower prices than it can be produced in Africa (Favada, 2009).

These problems can be addressed by governments in the region if they make a significant effort to create a favourable business environment by removing barriers to trade and entrepreneurship. Improving access to markets and technology could assist with improving intra-Africa trade (FAO, 2009).

Improvements in trade arrangements could, for instance, help southern African countries to gain access into the South African timber market. Currently, meranti and balau (both *Shorea* species) imported from Malaysia and Indonesia, are basically the only hardwood timbers used in house building and construction in South Africa. There are a number of African species that could be substituted for these Asian timbers, if secure and reliable supplies could be developed. Large amounts of veneer are imported into South Africa from the USA and EU countries. Veneers produced in Africa would have a transport cost advantage over the USA and EU countries, while many of the African species could be substituted for the darker wood veneers being imported into South Africa (Favada, 2009).

Afforestation

Most of Africa's wood is produced from natural forests and it is only in countries such as Morocco, Nigeria, South Africa and the Sudan (that have limited forest cover), where large-scale plantation forests have been established. The average annual afforestation in Africa from 1990 to 2005 was estimated at 70 000 hectare but in several countries such as South Africa, plantation areas are declining (FAO, 2009).

The future global demand for forest products and services will require further investment in plantation forests. Such forests established by industrial companies, farmers, private investors and local communities will in future have a growing importance as sources of industrial wood (Hermosilla and Simula, 2007). Opportunities for plantation expansion exist in southern Africa. The South African forestry sector, which is currently the largest plantation forestry sector in Africa, has limited opportunities to expand its plantation base and is faced

with potential timber shortages in future. Other southern African countries could potentially develop their plantation forestry industry and supply saw logs and wood fibre to the South African forestry sector (Favada, 2009).

If new plantation forests are developed, it will have to be economically viable, be based on sound technical concepts and employ adequate social and environmental safeguards. Plantations offer economic opportunities for small-scale farmers and communities if they are linked with functional markets. Outgrower arrangements between small-scale growers and private companies have proven to be successful in reducing ownership risks for companies while generating rural income and employment opportunities. Central to the success of afforestation programmes, should be sound tenure and ownership arrangements, investments in research and development, functional extension programmes and effective organisation of producers (Hermosilla and Simula, 2007).

Ecosystem services

While southern Africa has not yet embraced the idea of selling ecosystem services, it is becoming an increasingly popular alternative to destructive use of forest resources. Primary benefits include the conservation and restoration of natural vegetation but it has also been claimed that Payment for Ecosystem Services (PES) schemes can help to secure land use rights of communities and provide important social benefits, such as income in rural poor areas (Bishop *et al.* 2008).

PES schemes based on, for instance, carbon sequestration can present a significant proportion of the annual income for the rural poor. Tenure insecurity and uncertainty about property rights are however major impediments to new PES projects. The high transaction costs associated with projects involving small scale landholders is also seen as a potential obstacle to the establishment of new PES projects in Africa. These problems can be overcome by building strong community institutions that can guide the process; but African governments will have to build capacity at national level to attract more PES projects. This will require improved general governance as well as organising designated national authorities willing to take responsibility for such projects (Jindal, 2006). Key to the successes of such projects will be extensive information on the impact of land use on ecosystem services, flexible institutional arrangements with low transaction costs and payments that reflect both the opportunity costs of alternative land use and the willingness to pay beneficiaries (Bishop *et al.* 2008).

Entrepreneurship

Income from the trade in forest goods constitutes a significant business opportunity for many small-scale entrepreneurs. There is widespread trade in forest goods both within rural communities and in external markets (DWAF, 2005). Often these small-scale entrepreneurs are, however, constrained by a lack of processing equipment, capital and the absence of markets. These constraints prevent rural entrepreneurs from expanding their business and reaching their full potential (Ham *et al.* 2008b).

These entrepreneurs can benefit from a number of services which can be delivered either through government agencies or by utilising private sector partners. These services include:

- Organisation of small and medium forestry enterprises for collective bargaining and lobbying.
- Providing timely and well targeted business information that include technical know-how and market intelligence.
- Encouraging co-operative and self help groups.
- Simplifying and streamlining the regulatory environment.
- Training and extension.
- Supporting implementation of rural credit.
- Offering incentives for new entrance.
- Securing long-term resource supplies (DWAF, 2005).

An enterprise focused approach could start with the fuelwood and charcoal sectors, given their importance in forest conservation and community livelihoods in many parts of southern Africa and the relative lack of attention they currently receive from the international development and conservation communities. Entrepreneurs could be assisted by the improvement of manufacturing processes enhancing the current very low conversion rates of timber and charcoal processing operations (Bishop *et al.* 2008).

Conclusion and Policy Considerations

The forest resource use and management situation in southern Africa presents enormous challenges in dealing with acute poverty, weak policies and inadequate institutional development. The growing population and rising prices of food and energy will exacerbate the situation, slowing down the implementation

of sustainable forest management (FAO, 2009). Furthermore, it is realised that actions to improve the management of forest resources and optimisation of their contribution to poverty alleviation, economic development and environmental conservation are much more complicated than initially thought. A better understanding of institutional and governance challenges is required for lasting changes towards sustainable management (Hermosilla and Simula, 2007).

Countries in southern Africa have developed their own national forest policies but there is an increasing need for regional policies that could address cross-cutting issues, such as trade in forest products. Special attention needs to be given to enhance the quality of the forest resources at regional and national levels and to maximise the benefits that can be derived from the sustainable management of forests and woodlands. The effective implementation of policies is among the best opportunities that southern African countries have to conserve their forest resources while maximising the benefits to their citizens. Other measures to ensure the sustainability of forest resources include the implementation of integrated land use planning systems, conservation and sustainable use of natural and planted forests, community involvement in all aspects of forest management and the development of markets for ecosystem services (Zaikowski, 2008).

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Revisiting the Question of Local Communities in Transboundary Natural Resource Management (TBNRM)

The Case of Peace Parks in southern Africa

Emmanuel Kisiangani

Introduction

The concept of Transboundary Natural Resource Management (TBNRM) has, increasingly, been promoted as an integral part of the southern African region's vision to promote co-operation and improve the conservation of biodiversity and endangered ecosystems. Central to TBNRM is the idea of local community participation, which is seen to represent a paradigm shift away from the conventional government and international agencies dominated top-down model (Siddhartha, Gehendra and Khadga, 2007). With poverty being one of the major threats to the conservation of the environment and natural resources, the potential of TBNRM is seen in terms of utilisation of natural resources by local communities to promote their welfare and improve their living standards without damaging biodiversity.

TBNRM takes various forms, ranging from transfrontier/transboundary conservation areas¹, to spatial development initiatives such as those involving private companies and Non-Governmental Organisations (NGOs). This article focuses on the Transfrontier Conservation Areas (TFCAs) or 'Peace Parks'² in southern Africa. Mooted as the answer to the challenge of arresting the poverty and the environment cycle through sustainable development, Peace Parks have grown tremendously and have been replicated across the southern Africa region. In practice, however, their creation has not necessarily stimulated the intended benefits to local communities. In some cases, Peace Parks have undermined the very objectives they seek to realise. The aim of this chapter is to evaluate the place of local communities in Peace Parks in southern Africa and highlight some of the tensions that exist between principle and practice in TBNRM initiatives. The main argument of the chapter is that while the idea of Peace Parks is good in theory, in practice, it can face a set of challenges involving governance and institutional arrangements that undermine the buy-in at community level. The discussion concentrates on southern Africa in general, but draws most of

its illustrations from the Great Limpopo Peace Park, which is considered as the flagship TFCA in Africa (Büscher, 2005). Since there is little primary data that benchmarks the actual community benefits realised from Peace Parks, the study proceeds by integrating conceptual analyses and analytical reflections based on the potential benefits gleaned from literature.

The Development of TBNRM

The distribution of natural resources and biodiversity in Africa and the rest of the world do not necessarily follow international boundaries. In other words, international boundaries are political rather than ecological in nature. As such, key ecological systems and components often occur in two or more countries, and are subject to a range of different, sometimes opposing management and land-use systems. This situation has been more prominent in Africa, where international boundaries were drawn up arbitrarily, with little or no consideration whatsoever, of the socio-cultural, political and ecological conditions of the region. The emergence and growth of TBNRM initiatives is largely underlined by the need to promote collaborative natural resource management with the aim of enhancing or maintaining ecosystem functions and biodiversity objectives in transfrontier conservation areas (Van der Linde *et al.* 2001).

In Africa the first TBNRM initiative is said to be the Virunga National Park (formerly Albert National Park), which was created by the German colonial administration in 1925 (Info Resources News: 2004). The Park straddles the border of Rwanda and the Democratic Republic of Congo. The specific TBNRM concept of Peace Parks,³ however, only gained momentum in Africa (and in southern Africa in particular) in the mid 1990s, following the end of apartheid and subsequent improvement in state relations in the region. The intervening years have witnessed the concept of Peace Parks attracting a lot of attention because of the expectations associated with it. A number of countries, motivated by the need to open up borders that were arbitrarily drawn up during colonisation, embarked on a process of creating Peace Parks with the aim of re-establishing wildlife migration routes, promoting economic development and goodwill between states. The regional body, the Southern African Development Community (SADC) sees Peace Parks as complimenting the SADC principles related to alleviation of poverty and regional economic integration.⁴

While there is no comprehensive list of all transfrontier conservation areas in Africa, in southern Africa, SADC has identified about 20 existing and potential Peace Parks within the region that are at different levels of implementation (see

map and **table 4.1**). About six of them are either fully established or progressing towards that status.

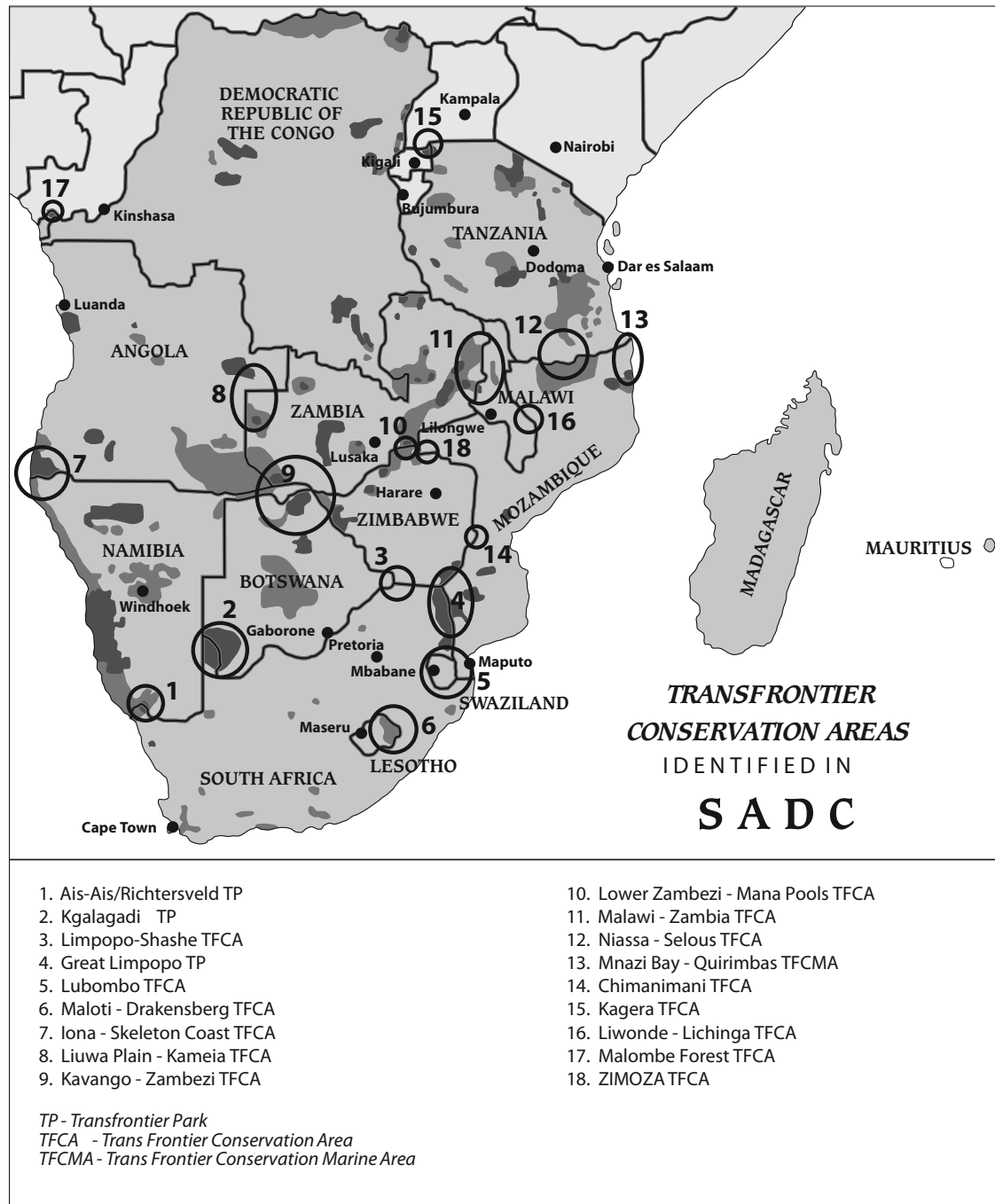
Table 4.1: Existing and Potential TFCAs within the SADC Region

Name of TFCA	Countries involved	Status
1. Ai-Ais/Richtersveld Transfrontier Park	Namibia and South Africa	MoU signed 17 August 2001
		Treaty signed 1 August 2003
2. Kgalagadi Transfrontier Park	Botswana and South Africa	Treaty signed May 2000
3. Limpopo-Shashe TFCA	Botswana, South Africa and Zimbabwe	MoU signed 13 June 2006
4. Great Limpopo Transfrontier Park	Mozambique, South Africa and Zimbabwe	MoU signed 10 November 2000
		Treaty signed 9 December 2002
5. Lubombo Transfrontier Conservation and Resource Area	Mozambique, South Africa and Swaziland	Tri-lateral Protocol signed 22 June 2000
6. Maloti-Drakensberg Transfrontier Conservation and Development Area	Lesotho and South Africa	MoU signed 11 June 2001
7. Iona-Skeleton Coast TFCA	Angola and Namibia	MoU signed 1 August 2003
8. Liuwa Plain-Kameia TFCA	Angola and Zambia	Conceptual phase
9. Kavango-Zambezi TFCA	Angola, Botswana, Namibia, Zambia and Zimbabwe	MoU developed
10. Lower Zambezi- Mana Pools TFCA	Zambia and Zimbabwe	Conceptual phase
11. Malawi-Zambia TFCA (combination of Nyika and Kasungu/Lukusuzi TFCAs)	Malawi and Zambia	MoU signed 13 August 2004
12. Niassa – Selous TFCA	Mozambique and Tanzania	Conceptual phase
13. Mnazi Bay – Quirimbas Transfrontier Marine Conservation Area	Mozambique and Tanzania	Conceptual phase
14. Chimanimani TFCA	Mozambique and Zimbabwe	MoU signed
15. Kagera TFCA	Rwanda / Tanzania	Conceptual phase
16. Liwonde-Lichinga TFCA	Malawi–Mozambique	Conceptual phase
17. Maiombe Forest TFCA	Angola, Congo and DRC	Conceptual phase
18. ZIMOZA TFCA	Mozambique, Zambia and Zimbabwe	Conceptual phase

Source: <http://www.sadc.int/fanr/naturalresources/transfrontier/index.php>

The Peace Park concept has largely been promoted by governments in the region and supported by international organisations such as the Peace Parks Foundation,

Map 4.1: TBNRM in southern Africa



Source: <http://www.sadc.int/fanr/naturalresources/transfrontier/index.php>

the World Conservation Union (IUCN), the World Wide Fund for Nature (WWF), and international financial institutions (IFIs) especially the World Bank's Global Environmental Facility (GEF).

While Peace Parks aim at integrating environmentalism into development policy, critics argue that attempts to achieve the assumed benefits, particularly those linked to community participation and poverty alleviation may not be realistic (Wolmer, 2004:137–146). They argue that the envisaged achievements

are hindered by domination of national and international interests, insufficient community consultation, and sensitive border issues such as the illegal flows of goods and migrants, compounded by inter-state differences induced by power imbalances, which limit the chances of success. Moreover, while governments and international organisations have prioritised the protection of natural resources on their agenda, they tend to put more weight on addressing the environmental concerns compared to issues of poverty and social justice.

Regional Management Frameworks

As a sign that SADC countries, in principle, recognise their international obligation to conserve their biodiversity, all countries in the region have ratified the Convention on Biodiversity. Most have also signed or ratified other major international conservation conventions, such as Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Wetlands of International Importance (the Ramsar Convention) and the World Heritage Convention (Hall-Martin and Modise, 2002), all of whose objectives complement the establishment of TFCAs. SADC considers TFCAs as an important component of regional cooperation and a key priority in promoting the economic advantages of environmental conservation and cross border resource management. The SADC member states have demonstrated their commitment to the conservation of biodiversity by signing the Protocol on Wildlife Conservation and Law Enforcement in 1999 and ratifying it at the end of 2003.

Since the establishment of TFCAs in the southern African region is a bi-lateral or multi-lateral venture, there is a consensus of opinion that SADC as an institution should be a role-player. There is a political role in supporting, prioritising, and facilitating the TFCA process. The overall aim is to support the goal of poverty alleviation in the region (SADC's Regional Indicative Strategic Development Plan (RISDP): 2003). To enhance the concept of Peace Parks, SADC member states have sought to establish policies and protocols to encourage and strengthen TFCAs/Peace Parks in southern Africa. Key among them is the Protocol on Wildlife Conservation and Law Enforcement, which is aimed at promoting the enforcement of laws governing resources and their sustainable use. Article 4(f) of this Protocol commits the SADC member states to 'promote the conservation of the shared wildlife resources through the establishment of transfrontier conservation areas'.

This framework affects the exploitation and management of resources by communities and can have a direct bearing on the extent to which trans-frontier

livelihoods and economies grow. With many poor and disadvantaged groups in the region located in and around Peace Parks, SADC countries consider TFCAs as offering opportunities to foster the objectives of poverty alleviation. As a result, local communities are, in principle, seen as important actors in the management of TFCAs and the 'routine' has been to promote their involvement in TFCA initiatives.

SADC has also established a TFCAs Office, whose main objective is to assist the SADC Secretariat in refining and coordinating regional projects and programmes associated with the establishment and development of TFCAs in the region as part of implementing the SADC Protocol on Wildlife Conservation and Law Enforcement. The specific objectives of the Office are as follows:

- promote the establishment and development of TFCAs in the SADC region as nodes of rural development and environmental conservation
- provide technical support to member states in the establishment and development of TFCAs in the SADC region
- facilitate the exchange of information and experiences among member states
- promote TFCAs as legitimate components of regional development programmes for poverty alleviation and community development
- promote the development of cross border tourism activities as a means of fostering regional and socio-economic development
- mobilise financing and technical services to support member states in establishing and developing TFCAs
- facilitate the promotion of community and private sector involvement in TFCAs activities such as tourism, for revenue generation
- promote conservation and sustainable management of ecosystems that transcend international boundaries within the SADC region
- promote trust, transparency and mutual respect in the overall TFCA processes.

Among the activities that the TFCAs Office seeks to include are:

- developing frameworks and strategies to define the role of key stakeholders (i.e. communities, private sector, government institutions, NGOs, donors, SADC Secretariat) to actively participate in the establishment and development of TFCAs
- develop and facilitate the implementation of guidelines, standards or best practices for the establishment and development of TFCAs
- and to establish a resource centre and for reference materials on TFCAs
- promote and maintain networking with other TFCA practitioners working in the SADC region

- facilitate the establishment of permanent support structures for TFCAs within the SADC Secretariat.

While the SADC Protocol on Wildlife Conservation and Law Enforcement and the SADC TFCA's Office provide excellent frameworks for supporting cooperation in transfrontier resource management, few of these measures have found expression in practice. For instance, many countries have not yet included the Protocol on Wildlife Conservation and Law Enforcement within national policies, while the TFCA's office is not yet operational.

Justification for Peace Parks in southern Africa

The major objectives of Peace Parks are understood to include the enhancement of biodiversity and ecosystem conservation across international boundaries and socio-economic development usually based on tourism. There is also the enhancement of co-operation between states, government agencies, and communities across political boundaries. To underscore the advantages of Peace Parks, Nelson Mandela said:

I know of no political movement, no philosophy, no ideology, which does not agree with the Peace Parks concept as we see it going into fruition today. It is a concept that can be embraced by all. In a world beset by conflict and division, peace is one of the cornerstones of the future. Peace Parks are a building block in this process, not only in our region, but potentially in the entire world.⁵

In southern Africa, Peace Parks are advanced as a development that reflects the principle of common heritage of natural resources. In other words, they represent a reincarnation of the vision of what Africa looked like during the pre-colonial period where official border lines were non-existent (Van der Linde *et al.* 2001). Significant wildlife and other environmental resources in southern Africa are often situated adjacent to each other, in the same ecosystem, but within different countries. To the promoters of Peace Parks, this makes the need for regional cooperation in environmental management self-evident. Natural resources are, thus, no longer seen as discrete entities existing in isolation, but rather as large habitats considered from an eco-regional and socio-economic perspective. A number of studies also maintain that communities living within or adjacent to transfrontier areas have traditionally been marginalised by national development processes and are, therefore, caught in a poverty trap (Partnerships For

Sustainable Development, 2003). The argument is that conservation areas have alienated local communities from ancestral lands, while the economic benefits and revenue flows from these areas have been directed towards the central government. The creation of Peace Parks with local participation is therefore seen to offer the potential to reverse some of the social injustices to local communities by emphasising the promotion of conservation and productive developmental objectives. It is this understanding that has motivated calls for the integration and promotion of social equity as a fundamental condition for sustainable conservation and natural resource use. Peace Parks are then offered as an African solution to a range of political, economic, ecological and social challenges (van Amerom and Büscher, 2005).

The conviction is that bigger parks would lead to more conservation benefits and economic advantages. Conservation groups in southern Africa argue that connecting cross-border conservation areas helps to deal with the wide range of environmental problems in the region such as deforestation, soil erosion and loss of biodiversity. Large conservation areas are expected to stimulate ecotourism and engender sustainable development through participatory processes in the management of natural and environmental resources. Peace Parks are also expected to promote regional integration by enhancing institutionalised cross-border cooperation and movement.

In contexts such as Mozambique, local communities have, over the last few decades, found themselves at the mercy of historical events, military conflicts or emigration due to lack of local livelihood options (Partnerships for Sustainable Development, 2003). As a result, this gave rise to the fragmentation of the ecosystems in the region, which threatened their biodiversity value. The justification for Peace Parks is that they will help to conserve the vast ecological resources of these areas and also optimally utilise their economic potential at local, national and cross boundary levels.

However, despite their popularity measured by their increased growth, Peace Parks in southern Africa, as will be observed later, have not necessarily answered the challenges of unequal resource appropriation, poverty and environmental degradation. In a region faced with disputes over land re-distribution (Bradshaw & Ndegwa, 2000) the creation of Peace Parks on vast areas of land has raised a range of questions relating not only to governance, ownership, and use and access rights, but more basically to their value and justification to local communities.

Challenges to the Operationalisation of Peace Parks

According to the Peace Park Foundation, all Peace Parks in southern Africa undergo similar processes of establishment, namely⁶:

- Procurement of political will and support for the Peace Park
- Putting together multilateral planning teams, made up of government and non-government technical experts who then develop a memorandum of understanding (MoU)
- Signing of the MoU by participating governments to facilitate the establishment of the Peace Park, initiation of a formal negotiation process and the setting up of an institutional framework as mandated by the MoU
- Development of an international treaty on the establishment of the Peace Park by international co-ordinators who also manage the various technical committees, such as those on customs, finance and community participation
- Signing of the international treaty and implementation of an institutional framework as mandated by it
- Launching/opening ceremony, i.e. the formal opening of the Peace Park
- Implementation of accepted conservation and economic principles in order to develop the Peace Park in a sustainable manner.

While Peace Parks in the region have attracted considerable foreign donor and media attention, it is South Africa, with its better infrastructure and resource capacity that has had an edge in operationalising the concept. This has, on the flip-side, brought about challenges relating to the sharing of resources between implementing states. For instance, with regards to the Great Limpopo Park, concerns have been raised that South Africa is benefiting more than the rest of the partners due to its better tourist infrastructure compared to its partners Mozambique and Zimbabwe. South Africa, however, maintains that it is its Kruger Park, attracting over a million tourists a year that functions as an ideal springboard for increasing the conservation benefits throughout the rest of the Great Limpopo Park.

Peace Parks involve a unique level of international co-operation because they transcend national jurisdictions. This, in principle, is a significant development in Africa where states often place heavy emphasis on formal and absolute sovereignty. Most obviously the partnering states have to cede a degree of control over those resources to their neighbouring countries and a multiple of international organisations and private enterprise involved in the management of these parks. This calls for sets of principles and practices to govern the operations of Peace Parks and deal with sensitive issues such as elimination of

physical boundaries to allow free movement of wildlife and people within the area. Because natural resources are such an important source of value for so many people, it is of little surprise that politics and power relations often strike at the heart of Peace Parks. Conflicts of various kinds and at multiple levels are the norm rather than the exception. Typically, the creation of Peace Parks involves changes not just in the physical management of natural resources, but also in the rules and regulations affecting their management. It also calls for harmonisation of national legislation and land-use policies.

Implementation of Peace Parks has cost implications. There is a need to take into account increased costs and infrastructural challenges for negotiating, collaborating, sharing information and transfrontier cooperation. Indeed, creating Peace Parks can be a source of considerable challenges where there are inequalities between participating countries. Institutional weaknesses and the inability of weaker parties to meet their obligations of the agreement can undermine the enforcement abilities as well as the relations between states engaged in the joint initiative. Compounding the challenges of working, managing, and collaborating within the parameters of Peace Parks is the problem of human-wildlife conflict. The danger posed by wildlife to human beings and domestic animals and the threat of transmission of diseases between wildlife and domestic animals is a key challenge and a problematic issue for Peace Parks (Cumming *et al.* 2007). The communities continually face the risk of losing their livestock to predators, the destruction of crops by the animals and the direct risk to their lives (Lamarque *et al.* 2008). In addition to the problems of human-wildlife conflict and veterinary disease control, the need to remove fencing creates problems for border control with respect to smuggling, illegal migration, and general border security. Indeed, security concerns, especially about illegal immigrants and the smuggling of weapons and four wheel-drive vehicles, have been hindering the removal of more sections of the border fence between the Kruger and Limpopo parks.⁷

In southern Africa, the challenge remains how to effectively deal with these infrastructural and systemic challenges. Many advocates of transfrontier conservation tend to ignore the costly realities and propose transfrontier conservation as a rapid progression towards single unified cross-border cooperation. It is apparent that there is need to carry out an integrated development plan that takes care of the competing and sometimes conflicting environmental protection goals and socio-economic imperatives that relate to land ownership customs and immigration, veterinary issues, joint management and community involvement. Policy makers and implementing agencies tend to portray Peace Park initiatives as an unproblematic marrying of ecological and rural development

objectives, yet an increasing number of critiques have revealed multiple tensions that require deeper exploration. Peace Park initiatives are sometimes driven by Western-influenced notions of what is most likely to foster productivity and investment and this may ignore customary land use arrangements that have served local populations in one form or another for generations. As a result, forced and often abrupt shifts away from traditional practices to other forms of livelihood systems can fuel conflicts between local communities and the commercial Peace Park interests.

The Place of Local Communities

The vision behind the linking of Peace Parks across international borders is to, among others; achieve job creation, biodiversity conservation and regional integration. According to the Peace Park foundation, one of the key elements in the success of transfrontier conservation is to involve local communities and ensure that their needs and aspirations are reflected in the implementation of Peace Parks. In southern Africa, one justification for the Peace Parks is closely linked with the use of rural communities as ‘partners’ to give the schemes local legitimacy (Duffy, n.d). In line with the management practice of devolving responsibility away from national governments, local communities are seen as key actors and stakeholders in conservation initiatives under Peace Parks (Hulme and Murphree, 2001). Since livelihoods of the people surrounding these parks are highly dependent of the use of natural resources and environmental goods, it is argued that one way of improving the sound management of those resources is to obtain broad support by integrating local people in both the planning and management of conservation programmes (Bennett, 2003).

In some southern African Peace Parks, implementing countries have contractual arrangements with local communities. For instance the Ai-Ai/Richtersveld Transfrontier Park between Namibia and South Africa is owned by local communities and jointly managed with South Africa National Parks (SANParks). In the Great Limpopo Transfrontier Park, the relevant countries continue to negotiate several land claims with local communities. The South African government has for some time now been negotiating with communities previously displaced by the Kruger National Park. A significant import of such negotiations was the creation of the Makuleke Contractual Park, an area in the north of Kruger, owned and managed under the guidance of a communal property association (Hannah, Fig, Magome and Leader-Williams, 2004: 377–409). Similarly, in Zimbabwe there is the Sengwe Communal Corridor, an area of communal land connecting South

Africa's Kruger Park and Zimbabwe's Gonarezhou Park. In Mozambique there are communities still living within the Limpopo Park although there are efforts underway to re-locate them.

Another attempt to involve local communities in the running of Peace Parks in southern Africa has been to form community forums. This has been the case especially in the Great Limpopo. The respective governments running the Peace Parks are, however, not formally obliged to consult these forums before undertaking any programmes. This means that in practice communities can sometimes be informed of plans after they have already become official policy (van Amerom and Büscher, 2005). A case in point is the Mozambican section of the Great Limpopo where most local communities were kept uninformed of the translocation of elephants from Kruger into their territory. Often, national political and technical groups have access to collaborative national transboundary forums while civic society stakeholders, especially communities, have little formal access, unless enabled to participate.

In their design, Peace Parks promise sustainable use of natural resources from conservation and eco-tourism. They are expected to act as a stimulus for economic development through the creation of new opportunities stemming from consumptive and non-consumptive resource utilisation (Jones: NA). A joint study by the South Africa based Peace Parks Foundation and the Development Bank of Southern Africa estimated that collectively, the Peace Parks in southern Africa could attract up to eight million visitors to the region every year and create much-needed jobs (Kahn, 2003). While there is a strong socio-economic motivation behind the creation of Peace Parks, there is little accurate information about their contribution to improving livelihoods and alleviating poverty. Among the few available documents is the Peace Park Foundation-1997–2008 progress report for the Great Limpopo Transfrontier, which indicates that only about 150 people had been trained and employed in the Great Limpopo, despite the Park having the potential to create about 61 000 jobs.⁸

Some conservationists warn that there may be unrealistic expectations about what Peace Parks can achieve. According to John Hanks, former executive director of the Peace Parks Foundation, all Peace Parks do not necessarily create jobs and promote tourism (Cited in Kahn, 2003). He argues that 'it is irresponsible to raise expectations about immediate significant tourism opportunities in areas that have little or no infrastructure and that some areas that may be of great importance for biodiversity have little appeal for tourism'. Grossman warns that in the long run, conservation objectives may be compromised if communities discover that they are unable to reap the anticipated social and economic benefits, and if their concerns are not adequately addressed.

In southern Africa, the creation of Peace Parks, like any large-scale development process, has been a learning curve. Katerere, Moyo, and Hill argue that in practice Peace Parks have been pushed forward at a rapid pace without much time for consultation with communities and other stakeholders (Katerere *et al.* 2001). While Peace Parks can create conditions for economic integration and ecosystem-level management, it remains unclear how local resource-dependent people are benefitting economically. Although community-based participatory approaches constitute the current conservation paradigm, in practice the initiatives continue to be driven by political and business elite (van Amerom and Büscher, 2005). With massive funds necessary for large-scale eco-regional planning initiatives, large conservation organisations are becoming increasingly business-like – developing funding strategies in conjunction with multi-lateral development banks and building corporate linkages. These funding structures as well as the managerial tools of these large-scale and top-down initiatives inevitably privilege ‘big conservation’ (transnational conservation organisations) at the expense of grassroots or even national conservation organisations (Wolmer, 2003). The dominance of political and business elites and the donor-driven nature of Peace Parks undermine the very notion of local level self-sufficiency.

A related concern is that much of the money paid by foreign tourists never benefits the region they visit and uncontrolled tourism can also have negative effects on fragile eco-systems. Parks have always been seen as a kind of alien establishment, another heritage from colonial times, more beneficial to tourists from rich countries than the country’s own poor population, especially the people living around the parks. This is reinforced by the fact that efforts to improve cross-border access for people at the moment focuses mainly on the needs of international tourists, most of whom book their tours in their home countries, or with local tour operators who send the revenue generated back to their overseas headquarters. Local communities generally struggle to secure and manage fully devolved resource-use rights. This has been the case in Tanzania, Mozambique, Zambia and Zimbabwe (Metcalf, 1994).

Wolmer (2003) suggests that Peace Parks are the latest in a line of top-down, market-oriented environmental interventions by international bureaucracies such as the World Bank, bilateral aid donors, and international environmental organisations. He argues that the language of ‘stakeholders,’ ‘partnerships,’ and ‘capacity building’ is fashionable but has led to an unhelpful and depoliticised discussion of community involvement in Peace Parks. Wolmer underscores the influence of conservation oriented transnational networks that have increasing regulatory, decisional and discursive power over conservation policies in southern Africa under the advent of the process of globalisation. He points out the

dialectical nature of the place of local communities, arguing that on one hand, the bargaining power of communities can be significantly enhanced through their relationships with international NGOs. On the other, the needs and political power of communities can be severely undermined through their participation in transfrontier conservation schemes that incorporate a number of globally powerful actors. Peace Parks, as initiatives undertaken at the highest levels of the government, stand to replicate the highly centralised and exclusive management approach many parks boards are currently trying to overcome (Swatuk, n.d). As an indication of the low position that local communities occupy within the Great Limpopo's organisational and institutional framework, in July 2000, South African Minister Valli Moosa refused to allow community representatives to access a ministerial meeting that was charting out the action plan for the establishment of the Great Limpopo Transfrontier Park (cited in Büscher, 2005). There are authors who argue that although development and environmental projects that have international dimensions may be well-meaning and sincere attempts at human betterment, they often serve as mechanisms for the imposition of state authority and the undermining of local agendas and priorities. Brosius (1999: 36) for instance, implicates environmental conservation movements by arguing that there is a conscious effort by national elites and transnational capital – ‘using environmental protection as a pretext – to displace moral and political imperatives in favour of indifferent bureaucratic and techno-scientific forms of institutionally created and validated intervention.’

Neumann brings up a different dimension on the place of local communities by observing that demands from local communities for the power to control, use, and access environmental resources are not the same as plans for local participation in externally driven conservation schemes and commitments to sharing benefits locally (Neumann, 2000: 220–242). In Neumann's position, local participation is far from politically neutral and has often helped the dominant economic, political, and social groups within communities further their interests at the expense of others. To Neumann, presenting communities as single units with common interests that support Peace Parks is a clear over-simplification, since local communities affected by or involved in Peace Park schemes are organisationally complex, contain many different interest groups, and are stratified by age, gender, income, and so on.

The Great Limpopo is often heralded as the best example of Peace Parks in the region. However, considering border access between communities in Zimbabwe, Mozambique, and South Africa, it is apparent that there has neither been much improvement in terms of joint cross-border community consultations nor the associated economic benefits. Although the Sengwe community, which owns the land

in the Sengwe corridor between the Kruger National Park and the Zimbabwean Gonarezhou Park, intends to join the Great Limpopo, the Zimbabwean government has still not formally consulted this community to enable its involvement in accordance with the Zimbabwean law (Spenceley, 2005). Removal of the boundary fence between South Africa and Zimbabwe is also hampered by the fact that it acts as an important barrier to the spread of veterinary diseases, such as bovine tuberculosis in buffalo and foot and mouth disease (Ramutsindela, 2004: 69). Moreover, in the past few years, out of fear of the spill-over effect such as increasing flows of refugees and arms from the political violence in Zimbabwe, South Africa and Mozambique have pursued policies that made it increasingly difficult for Zimbabwean citizens to cross the border into these countries (van Amerom and Büscher, 2005). Both countries have been unwilling to accede to open border policies with Zimbabwe in the Great Limpopo. It is feared that a removal of boundary fences might lead to illegal networks utilising the weakly enforced borders to traffic arms, drugs, stolen cars, and people, as well as to illegally trade endangered species of plants and animals. Within the Great Limpopo, the South African police and other security agencies successfully campaigned for the maintenance of the border fence between the Kruger Park and the Mozambican Limpopo Park, coupled with an increase of internal border posts in the Great Limpopo. The fence has, however, been cut in some places to allow for the migration of wildlife.

Another challenge to the involvement of local communities in Peace Parks is the differences in laws, regulations and policies. While the creation of Peace Parks is intended to bring communities together in sharing common natural resources, different laws, regulations and policies, determine the utilisation of these resources. Within the Great Limpopo for instance, South Africa's section (Kruger Park) observes a preservationist management regime, where individuals are not allowed to hunt or reside in the park. In Mozambique on the other hand, there are local communities residing within the Limpopo Park (although there are current efforts to relocate them). In Zimbabwe, sections of the Great Limpopo's Gonarezhou Park, especially the northern part, have at various points in time been intruded by local communities (Nielsen and Chikoko, 2002). There have also been reports of increased game poaching within the Zimbabwe portion of the park. The differences in regulation frameworks in the Great Limpopo have been a particular source of contention between South Africa and Mozambique (Büscher, 2005). South African wildlife management sought to relocate 'excess elephants' from the Kruger Park to Mozambique's Limpopo Park by creating wildlife corridors between the two. The fear, however, was that the elephants could be poached for ivory by communities residing on the Mozambican side.

To avoid this, the former South African Department of Environmental Affairs (DEAT), now the Department of Water and Environmental Affairs, and the Peace Parks Foundation advocated the relocation of communities (University of the Witwatersrand, 2002). While Mozambique has given in to this pressure, it has raised concerns within Mozambique that participation in the Great Limpopo was threatening the country's sovereignty (Van Amerom, 2002: 265–73).

Indeed, the 'power imbalances' in the region threaten the potential contribution and cooperation through Peace Parks. This has been reflected in struggles over the sharing of benefits between South Africa and neighbouring countries and over land harmonisation policies. The sharing of the Great Limpopo's ecotourism benefits on the basis of equity has proved difficult to realise. While Mozambique and Zimbabwe initially envisaged that the total income of park fees would be shared by all three countries, South Africa, whose Kruger Park is by far the most profitable, insisted on each country being entitled to keep its own revenues. The issue was eventually resolved in favour of the South African viewpoint, that park revenue being split according to the number of tourists attracted. This highlighted the dilemma facing poorer countries, namely that they need tourists' money to develop and maintain their facilities, yet without such facilities, they are unable to attract visitors in the first place. Interestingly, while some countries in southern Africa have little human, technical, and capital resources to implement the joint management programmes and welcome South Africa's expertise in managing parks, they remain wary and fearful of South Africa's dominance of the regional economy (Fakir, 2003:15–24). Nonetheless, it remains evident that the assumed benefits from Peace Parks could easily run into divergent national interests and agendas such as issues of sovereignty, resource control and security concerns that are likely to cause inter-state disputes, rather than assuage them.

Another criticism levelled against the Peace Parks is that they rapidly propel local populations into a new kind of land-use, giving them little time to adapt. Salim Fakir points out that this can pose serious risks to poor people who may not have the power or skills to negotiate benefits, such as a share in the economic spin-offs from the parks, particularly if they were moved off ancestral land in the past (Kahn, 2003). In many instances, as a result of historic colonial legacy, communities do not have legal provision for the land they live on. It is usually based on customary law which does not protect poorer communities who may not have adequate legal support.

Matters are compounded by the feeling that Peace Parks have not fulfilled the promise of a better life for local communities. The formation of the Great Limpopo has not improved cross-border access, let alone the economic well-being of the several millions of people surrounding the park (Metcalf, 2003). In a

region where the socio-political and economic landscape is marred by unresolved questions about resources, particularly land distribution, some of the Peace Parks find themselves under extreme pressure to justify their continued existence. Even where local communities have relatively strong rights to land and representation, the exercise of their rights in the Great Limpopo tends to remain highly limited. Elsewhere, local communities, such as the San in Botswana's Kalahari game reserve - which along with the Kalahari Gemsbok National Park and Mabuasehube Game Reserve form the Kgalakgadi Transfrontier Park - have in the past complained of being excluded from the economic benefits of these parks (Blandy: n.d).

On the question of capacity, communities have also faced management challenges related to lack of relevant knowledge to use Peace Parks in promoting poverty alleviation and environmental conservation. Despite the fact that communities may have a strong claim to the use and benefit of natural resources, they do not necessarily have the skills and knowledge to manage the resources efficiently and sustainably. Despite the good intentions behind Peace Parks, they have not always translated into improved livelihoods for local communities.

Peace Parks and Sustainable Livelihoods

A number of frameworks have been put forward to understanding problems of natural resource management and the need to promote conservation and productive developmental objectives. Among them is the Sustainable Livelihoods Approach (SLA) which underscores the need to gain an understanding of how local people can convert available resources into positive livelihood outcomes (Carney, 1998). While the philosophy underpinning the establishment of Peace Parks is that nature-based tourism will provide economically sustainable livelihoods to the people living in and adjacent to the parks, in southern Africa, sustainable livelihood approaches such as eco-tourism have generally not lived up to their potential. Among the notable few examples include eco-tourism in Zambia, where privatisation of game lodges and hunting concessions is regulated on an international competitive bid basis, but to encourage local investors and particularly indigenous entrepreneurs, certain leases and hunting concessions have been reserved for domestic bidders (Vieta, n.d). SLA underscores the need for pragmatic approaches to integrating local community livelihood priorities into different stages of Peace Park cycle management with a clear and succinct effort to promote local community's quality of life. Bebbington describes sustainable livelihoods as:

- Diverse assets
- Ways in which people are able to access, defend, and sustain these assets
- Abilities to combine/transform assets into income, dignity, power, and sustainability so as to reduce poverty and increase living quality and human and social capability
- An asset base that will continue to allow for the same sort of transformations
- Abilities to change the rules and relationships governing how resources are controlled, distributed, and transformed into income streams (cited by Kinakan, 2003).

In principle, most TBNRM initiatives are guided by the belief that the most effective way to safeguard natural resources is to use them in sustainable ways to alleviate poverty, and that certain policies are needed to help address these economic concerns. In practice, however, few of these initiatives actually empower local communities by building their assets and capacity to tangibly tap into joint conservation and natural resource management. Desired livelihood outcomes will likely include: increased human capital (skills, knowledge, beliefs, attitudes, labour ability and good health), better social capital (relationships of trust and reciprocity, groups, and networks), improved physical capital (basic infrastructure), more financial capital, improved natural capital (forests, water, land, energy resources and minerals), reduced vulnerability and improved food security.⁹ Communities can achieve sustainable livelihoods if their capacity is developed to meet their physical and social needs, while not significantly degrading the quantity or quality of natural resources on which they or others depend. This calls for more effort from the creators of Peace Parks to develop a broad-based understanding of the dynamics and parameters of local level development realities.

Some critical issues inter-linked with Peace Parks and people's lives are land conversion due to agriculture expansion, encroachment of habitats, wetlands and forests due to internal displacement, rapid migration, open border, land insecurity and political instability, grazing pressure, poaching, illegal wildlife trade, human wildlife conflict, unsustainable consumption and harvesting of natural resources, unemployment and lack of economic opportunity, social exclusion, weak governance and social injustice in resources. Peace Parks, therefore, need to be designed with a focus on the overall outcome of integrating solutions to these livelihoods concerns if they are to reduce the pressure on biodiversity and natural resources. A major intervention can be to promote income generating activities through natural resource based enterprises, and improved access and governance to community services. This calls for enhancing the local community assets, such as human capacities, social capital, technologies and their networks

of social support to steer Peace Parks towards activities that are more coherent with local peoples' needs and desires.

To an extent, chances for the success of Peace Parks are likely to be enhanced if local communities are involved in planning, decision-making, implementation and monitoring of conservation efforts. Participation of local communities contributes to their empowerment through individual learning processes, enhanced organisational capacity and increased 'political' voice. Unless the issue of local identity, participation, community asset building and direct benefit are put firmly into the vision and strategy of Peace Parks, economic development will be skewed, poverty not reduced, local livelihoods not secured and sustainability undermined.

Broadly, at a theoretical level Peace Parks promise sustainable resource management, biodiversity preservation, rural economic development and good governance all rolled into one. In practice, however, they run into a number of asymmetrical problems as illustrated in this chapter. It is neither the intention of this chapter to portray Peace Parks in a negative light nor to discount the benefits associated with them, but rather to point to possible knowledge gaps and urge for caution in moves to replicate the concept in the region and elsewhere. Ultimately, there is need for baseline studies to ascertain the true biodiversity benefits of Peace Parks in southern Africa.

Conclusion and Policy Considerations

Despite the misgivings about Peace Parks, it is generally accepted that they offer hope for the protection of fragile environments as well as stimulating the tourism industry. In the African context, the creation of Peace Parks across national borders ties in with Pan-African visions of reuniting a continent artificially carved up by colonialism and achieving the 'cultural harmonisation' of divided ethnic groups (Wolmer, 2003). They are significant in the sense that they embody a process of collaboration and building networks. Seen from the point of view of meeting biodiversity targets in terms of the Convention on Biological Diversity (CBD),¹⁰ Peace Parks offer an opportunity to participating countries to deal with some of the challenges to sustainable development in areas that are marginal to the 'centres of national power'. Basic conservation biology outlines the benefits of reducing landscape fragmentation and increasing environmental economies. Peace Parks appear an attractive intervention if they support processes that tangibly improve people's lives. Their success lies in aligning themselves with local community welfare and interests, rather than being in confrontation with them.

Most of the peace park agreements recognise the importance of involving local communities. The challenge, however, remains how to translate into practice the interests of the communities involved. Article 8(j) of the Convention on Biological Diversity and Chapter 26 of Agenda 21, all point to the need to involve local/indigenous communities in the management of natural resources. It is important that local communities are involved from the outset so that they have realistic expectations and are actively involved in decision-making and implementation. Moreover, it is important that Peace Parks accommodate the socio-economic and cultural interests, values, rights and responsibilities of local communities living in and around their borders.

On the whole, the concept of Peace Parks is still new in Africa and it is difficult to make any definitive statements about its long-term success or otherwise. The potential does exist, but there is need for mechanisms to monitor and benchmark the claims of the numerous benefits. For instance, improved livelihoods must be measured and actions taken to ensure that end. It is important that ecological, social, and economic indicators are designed and effectively monitored to ensure that assumptions are verified. Those involved in the implementation of Peace Parks also need to shift their thinking regarding communities in ways that includes addressing the issue of capacity and unequal balance of power between local communities and state conservation/international agencies in order to re-align the objectives of these Parks to those of the society.

Policy Considerations

- If Peace Parks are to address the inter-linked development challenges of poverty alleviation, environmental sustainability and regional integration, they must be designed and implemented in an integrated manner that balances the interests of all stakeholders, including the active participation of local communities whose livelihoods are affected.
- Peace Parks need to deliberately formulate and carry out policies that support local communities' economic empowerment such as boosting local community income through improved access rights, tenure, benefit sharing, reward for environmental stewardship, incentives for the private sector to adopt 'pro-poor' policies and establishing trusts and endowment funds to support local community livelihood.
- There is also need to explore the feasibility of developing and implementing training programmes to build capacity of local communities to participate more effectively in the implementation processes of conservation initiatives.

- SADC needs to promote Peace Parks as legitimate components of regional development programmes and to commit itself to facilitate their implementation.
- Where there is capacity and resources differences between partner states, there is need to promote capacity-building and skills-transfer from the well developed sides of Peace Parks to the less developed sides (for instance in the Great Limpopo there is need for South Africa to support Mozambique and Zimbabwe, if the cross border collaboration is to be sustainable).
- There is need to build strong cross-border networks to share experiences and disseminate best practice information.
- There is need to cultivate applied research on the benefits associated with Peace Parks as well as establish monitoring and evaluation measures so as to build concrete, evidence-based foundations to inform policy and decision making.

Notes

- 1 While the terms transfrontier and transboundary seem to convey the same meaning, this study prefers the former due to its relevance to the geographical context of the study's focus i.e. southern Africa and by extension Africa. In this region, national borders are not necessarily well-defined or linked to the precise, linear concept of international borders, which the term 'transboundary' would seem to imply. Indeed, there are many border areas that span regions in Africa where boundaries have not been agreed upon or are not well-defined. For further discussion on border demarcation, see Krukowski, W. R. M. 'Frontiers and Boundaries' available at <http://www.info.lncc.br/wrmkkk/artigo1.html>, July 30, 1998.
- 2 Peace Parks are conservation areas that cross one or more international borders and use common management practices to conserve a single transnational ecosystem. The TFCAs are often referred to as Peace Parks because they are seen to provide scope for collaboration and minimise conflicts between countries. In this study, the terms TFCAs/Peace Parks and Transboundary Protected Areas (TBPAs) are used interchangeably although strictly speaking there are subtle differences between them. TFCAs/ Peace Parks often adhere to one land-use option (usually strict conservation), while TBPAs combine multiple land-use options in one locale (for instance, conservation areas, hunting concession grounds, and community-based natural resource management areas). (See Wolmer, W. 2003 *Transboundary Conservation: The Politics of Ecological Integrity in the Great Limpopo Transfrontier Park*. Sustainable Livelihoods in Southern Africa Research Paper No. 4, Institute of Development Studies, Brighton).
- 3 This concept was conceived in North America in the early 1930s. For details about its origin see Marloes van Amerom and Bram Büscher, 2005, 'Peace Parks in Southern Africa: bringers of an African Renaissance?' *The Journal of Modern African Studies*, 43:2:159–182 Cambridge University Press.
- 4 <http://www.sadc.int/fanr/naturalresources/transfrontier/index.php>.
- 5 <http://www.peaceparks.org/Home.htm>.

- 6 Peace Park Foundation, 'Implementation of a Peace Park', http://www.peaceparks.org/Content_1020300000_Implementation.htm.
- 7 http://www.peaceparks.org/News_1090000000_5_0_0_0_507_Great+Limpopo+Elephants.htm.
- 8 Peace Park Foundation, http://www.peaceparks.org/Content_1021100000_Communities.htm.
- 9 Trust For Sustainable Livelihoods, <http://www.sustrust.org/>.
- 10 Convention On Biological Diversity, Available at www.cbd.int.

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The Governance of Natural Resources in southern Africa

Lesley Masters

The United Nations has declared 2010 the year of biodiversity in an effort to highlight the need to take action in protecting the variety of life on earth (UN Convention on Biological Diversity). While southern Africa is a region of significant biodiversity, there has been a shortfall in efforts aimed at achieving the 2010 biodiversity target. This has been attributed to the failure to sufficiently integrate and mainstream biodiversity into the governance of the continent's natural resources (UNEP 2010: 1). The governance of natural resources has languished on the periphery when it comes to policy decision-making. As the prior chapters have indicated, there is a continued dependency on natural resources within southern Africa. Protecting and managing these natural resources is therefore an imperative for the socio-economic development of the region. Certainly, while southern Africa is well endowed with natural resources, the people of the region are among some of the poorest and most under-developed on earth. The question is then one of governance – how can these resources be harnessed in a way that will provide the best means for ensuring local, national and regional socio-economic development, without resulting in their over exploitation and rent-seeking by the dominant elite.

As part the Institute for Global Dialogue's (IGD) focus on governance, this second contribution to the series on natural resources has set out to capture the nature of the problem in relation to four (4) sector-specific areas: mining, fisheries, forestry and transboundary natural resource management. Each of these case studies has provided a detailed analysis of the challenges facing their particular sector in terms of the management of these natural resources. However, from a reading of these chapters it becomes apparent that while there may be specific challenges for each sector, there are also a number of cross-cutting challenges and opportunities. This final chapter considers some of these broader level challenges and opportunities facing the governance of natural resources in the southern African region. This includes the economics of natural resource governance in poverty alleviation and the importance of politics at a regional, national and

local level in the allocation of rights, policy decision making, and the sustainable use of natural resources.

Questioning the Economics of Natural Resource Governance

The commodification of natural resources presents one of the greatest challenges to its governance. There has been an increasing tendency to look at a country's 'balance sheet' in terms of its biocapacity: i.e. where the 'income' in terms of biocapacity and 'expenses' in terms of demand on these resources does not become unsustainable. Converting natural resources into 'environmental capital' or 'natural wealth' may have its place in drawing government attention to the value of these resources, but there is the danger that these resources are viewed purely in terms of their economic value. One such example is the case of the Stern Review on the Economics of Climate Change which drew attention to the economic impact that climate change has on economies, indicating a loss of some 5% of GDP per year due to climate change. While this has focused international attention on the economic impact of climate change on GDPs, the report has faced subsequent criticism for failing to account for the cost and impact of climate change on social development.

Secondly, the region continues to depend on natural resource wealth. Dependency on a single resource, whether renewable or not, presents a particular challenge as states become increasingly vulnerable to changing commodity prices. Thirdly, wider systemic challenges – or the current international economic realities – serves to reinforce the international division of labour. The contributors to this book have highlighted the additional stress placed on the region's natural resources by the external markets and companies in their extractive capacities. Whether it is fishing off the coasts of Mozambique and South Africa, or the export of timber and minerals, in the main there is no value addition in terms of manufacturing or marketing. Certainly when it comes to explanations that seek to explain the 'resource curse' and continued underdevelopment, there is a tendency to gloss over the role of external or transnational forces engaged in the exploitation of natural resources (Onuoha 2008, 19).

Finally, a focus on the economics of natural resources does not allow for the inclusion of externalities or inter-linkages in determining the value of natural resources to the country or region's GDP. For instance, while mining or the sale of fish or forestry products may be included in national budgets, the impact that their exploitation has on the wider environment is not necessarily included, whether it be it in terms of land usage (soil erosion), water (pollution), or loss of

biodiversity in fauna and flora and its subsequent impact on the development of local communities.

The Politics of Natural Resource Governance

The need for capacity building remains central to the governance of the region's natural resources. This includes education, technology and information transfer and further research and development in managing the natural resources. This requires leadership not only at a regional (SADC) level, but at the national and local level.

The cross-boundary nature of many of the challenges facing the governance of the regions natural resources necessitates the need for collective decision-making. Nevertheless, multilateralism represents a double-edge sword. On the one hand there is the challenge that a negotiated text may have negative implications in terms of resource usage for some of the parties to an agreement. As Powell argues, '[b]y entering into multilateral agreements, developing countries thus run the risk of signing themselves into a regulatory corner that, while protecting "global" resources, will reduce their potential for future economic development and their citizens' ability to meet their basic needs' (Powell 2003: 7). On the other hand, regional organisations like SADC can play an important role in representing the region's interest in multilateral fora. For instance, threats to the global commons such as climate change are discussed in large international forums such as the United Nations Framework Convention on Climate Change (UNFCCC). However, with such a myriad of voices competing for policy space, regional groupings can provide a strategic platform from which to ensure the interests of member countries are heard at the negotiation table.

Within southern Africa, questions concerning sustainable development and the governance of natural resources have begun to climb the regional agenda. In July (2010) the ministers responsible for natural resources and the environment met in Zimbabwe to review the performance of the sector, which is itself a part of the Regional Indicative Strategic Development Plan (RISDP) (SADC Media Release 16 July 2010). While there is still room for capacity building at this level, a number of projects have been undertaken in the fisheries sector as well as the signing of a forestry protocol (2002) and subsequent country reports on Botswana, Malawi, Mozambique and Namibia. Co-operation on the TFCA has been positive, although there is still the need to establish permanent support structures within the SADC Secretariat.

At the national level, the mainstreaming of policy relating to the governance of natural resources into national policy needs attention. As this is the level where decision-making authority rests, it is particularly important that there is a political will in driving the integration of natural resource management in the policy process. Moreover, as with the international context, the challenge here is that within the national framework there are a number of competing interests that seek to influence government policy making. For instance, in South Africa the dominance of the minerals-energy complex has a considerable impact on the design and implementation of policies relating to the conservation of natural resources such as land, water, and air quality. In the case of the fisheries in Mozambique, large-scale fishers dominate access to government on terms of policy decision making. This is where there is a need for greater engagement with communities and civil society organisation that can promote the sustainable use of the region's natural resources. As the African Development Bank report, *Natural Resources for Sustainable Development in Africa* posits, '[g]etting the policies wrong, disregarding their sequencing and alignment with the rest of the economy, or ignoring absorptive capacity and good governance issues may transform a natural resource boom into a curse that could effectively stall economic growth, worsen the poverty situation, and become a recipe for social and political instability' (AfDB 2007: xxv).

In terms of national priorities, focus should be on developing frameworks and strategies as well as identifying key stakeholders. Natural resources present a significant opportunity for local socio-economic development within southern Africa. In each of the case studies the importance of local community participation was deemed an integral part of the policy process – both in terms of design and implementation. Not only will this support local buy-in in the management of natural resources, but it will facilitate the empowerment of the community in their socio-economic development.

Conclusion and the Way Forward

What is increasingly evident from the literature on natural resource governance is the tendency to focus explanations pertaining to the 'resource curse' on a single level. On the one hand analysis will point towards the role of internal corruption, repressive regimes, poor or limited government structures in undermining the governance of natural resources in the development of a country. Alternatively there are those who highlight the systemic challenges of the international economic system, where the developed exploit the under-developed. This approach,

however, obscures a more complex reality in the need to consider multiple levels in approaching the management of the region's (and the continent's) natural resources. In the first instance the value of natural resources should not be restricted to their economic contribution, but should take into account wider externalities as well as the social dimension of development. Secondly, attention needs to be given to the governance of natural resources at a regional, national, and local level in addressing the question of how best to mobilise the region's resources in supporting socio-economic development. And finally, as we face the challenges presented by climate change, the interdependency that exists between the various natural resources is becoming ever more patent. While a sector-specific approach provides crucial insight into the challenges facing the different natural resource sectors, the linkages that exist should be highlighted as an important source of capacity building.

The rush for access to Africa's natural resources continues to gather pace. This is not only from the former colonial powers but from states such as China, the US, the United Arab Emirates, Russia and India. This has raised international concerns regarding the promotion of democracy and human rights within the region, as some of these newcomers are more willing to work with regimes that have questionable human rights records. In addition, there are continued concerns that this growing interest will fuel natural resources exploitation at the cost of socio-economic development. In this respect, for natural resources to truly contribute to the socio-economic development of the region, there needs to be an understanding of the external pressure from the international economy; the governance at a regional, national and local level; and the development of a greater understanding of the linkages between the different sectors that form part of it. This will be the challenge in the future governance of southern Africa's natural resources.

Notes

See the Stern Review available http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm accessed 16/08/2010

Programmes and projects include the Benguela Current large Marine Ecosystem 9BCLME) Programme; Benguela Environment Fisheries Interaction and Training (BENEFIT); Benguela Current Commission (BCC); South West Indian Ocean Fisheries Commission (SWIOFC); and the NEPAD Action Plan for the Development of African Fisheries and Aquaculture. <http://www.sadc.int/fanr/naturalresources/fisheries/index.php> accessed 17/08/2010

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Natural Resources Governance in southern Africa

Questions regarding the governance of natural resources will become more politicised in the face of growing international and domestic pressure for access to these increasingly scarce resources.

Southern Africa has a rich diversity of natural resources and yet many of the region's countries remain trapped in poverty and are overly dependent on the export of primary commodities. As part of the Institute for Global Dialogue's (IGD) focus on governance, this second contribution to the series on natural resources has set out to capture the nature of the problem in relation to four sector-specific areas: mining, fisheries, forestry and transboundary natural resource management.

Through these detailed sector analyses, this book sets out to interrogate the external and domestic demand for resources as well as the socio-economic challenges facing the governance of these resources. Through a number of policy recommendations, this book raises some strategic considerations that may prove essential ingredients in the development of a common position on natural resource governance within southern Africa.

